

ENVIRONMENTAL ASSESSMENT RECORD

NUMBER: CO-200-2003-0090EA

PLANNING UNIT: Gold Belt, # 5

PROJECT NAME: Recreation - Gold Belt Travel Management Plan (TMP)

SUMMARY DESCRIPTION OF THE PROPOSED ACTION: The Bureau of Land Management (BLM) proposes amending the Royal Gorge Resource Management Plan (RMP) to revise current travel management regulations for the Gold Belt Eco-Subregion. The primary purpose of this travel management plan and RMP amendment is to change OHV designations used within most of the planning area from the current system of **Limited to Existing Roads and Trails** to a new system of **Limited to Designated Roads and Trails**.

Under the RMP, the Gold Belt Eco-Subregion contains three categories of OHV designations (Open, Limited, and Closed) that are used by BLM to control vehicular use. Open areas are locations on Public Lands with no limitations or restrictions to full use and travel by OHVs. The Penrose Commons area is the only OHV Open area in the Gold Belt Eco-Subregion. Closed areas are locations on Public Lands where absolutely no use or travel by OHVs is allowed. The Beaver Creek Wilderness Study Area (WSA) and the Deer Haven area are the only OHV Closed areas in the Eco-Subregion. Limited areas are locations on Public Lands with some form of limitation or restriction for the full use and travel by OHVs (i.e., seasonally limited travel or restrictions of travel to existing roads and trails only). Most of the Public Lands in the Gold Belt Eco-Subregion occur within the OHV designation of **Limited to Existing Roads and Trails**.

Under the Proposed Action the designation in the Penrose Commons area would be changed to one of OHV **Limited to Designated Roads and Trails**. The Royal Gorge RMP initially designated all of the lands within the sub-unit as an OHV **Open** area, with no limitations or restrictions to full use and travel of off-highway vehicles. In 2001, in response to a need to protect the resources in the area, the Field Manager implemented a special rule that changed the OHV designation to one of **Limited to Existing Roads and Trails**. This rule needed to be renewed annually until a travel management plan was completed and OHVs were limited to designated routes. This rule remained in effect through July 2003 but has since expired and the area has reverted to an **Open** designation.

The Beaver Creek WSA and the Deer Haven area would continue to be designated and managed as OHV **Closed** areas.

The majority of the Public Lands in the planning area were designated in the RMP as **Limited to Existing Roads and Trails**. The Proposed Action would further refine that designation to one of **Limited to Designated Roads and Trails**. The Proposed Action would establish designated travel routes for motorized, mechanized, and non-motorized uses and define the types of uses that are permitted on individual roads and trails.

The Proposed Action would also limit travel by bicycles and other non-motorized mechanical

vehicles to designated roads and trails, and limit the maximum distance that motor vehicles may be driven off designated roads and trails for parking, camping, and retrieving game to 100 feet. A summary of the miles of routes available under each of the alternatives that were analyzed in this EA is included in the detailed description of the alternatives.

Target shooting is a recognized legitimate activity on BLM lands, and is generally allowed where safety and conflicts with other uses are not a concern. Under the Proposed Action, BLM proposes restricting target shooting in specific areas. Target shooting in the Oil Well Flats portion of the Garden Park sub-unit, the climbing and camping areas within the Shelf Road Climbing Area sub-unit, and the Penrose Commons sub-unit would be closed immediately. Target shooting in the Dinosaur Flats portion of the Garden Park sub-unit would be phased out upon identification of a suitable replacement.

ACRONYMS USED IN THIS DOCUMENT

ACEC	Area of Critical Environmental Concern
ATV	All Terrain Vehicle
BLM	Bureau of Land Management
CNHP	Colorado Natural Heritage Program
DFC	Desired Future Condition
DOW	Colorado Division of Wildlife
EA	Environmental Assessment
4WD	Four-wheel drive vehicle
FCR	Fremont County Road
GIS	Geographic Information System
GPS	Global Positioning Satellite
NNL	National Natural Landmark
OHV	Off-Highway Vehicle
RMP	Resource Management Plan
RNA	Research Natural Area
ROS	Recreation Opportunity Spectrum
RGFO	Royal Gorge Field Office
TMP	Travel Management Plan
T&E	Threatened & Endangered Species
WAPA	Western Area Power Administration
WSA	Wilderness Study Area

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INTRODUCTION

PURPOSE AND NEED OF PROPOSED ACTION

Action is needed to implement the decision that was made in the Royal Gorge RMP (approved May 13, 1996) to establish a *designated route system** and to address other goals and objectives that were identified through public scoping.

**Designated route system refers to the method of managing the transportation network in which the individual roads and trails are limited to specific modes of travel, and that are identified on travel maps and posted on the ground with signs. Under the current travel management system, OHVs are permitted to operate on all existing roads and trails except for those routes that have been posted as closed to motorized use. Under a designated travel management system, OHVs would be limited to operating on roads and trails that are identified on travel maps and/or posted as routes that are available for motorized use.*

LOCATION AND SETTING

[Map 1](#) displays the boundaries of the Gold Belt TMP planning area. The southern boundary of the planning area borders Highway 50 and the communities of Canon City and Florence, with the northern boundary taking in the communities of Victor and Cripple Creek. The east and west boundaries follow Highway 115 on the east and Highway 9 on the west. The planning area boundary includes portions of Fremont, Teller, Park, and El Paso Counties and encompasses approximately 564,600 acres, including 138,600 acres of BLM Public Lands.

Included within the planning area are the Gold Belt Tour National Scenic and Historic Byway and the Garden Park ACEC. Portions of Garden Park are also designated as a Research Natural Area (RNA) and National Natural Landmark (NNL) for the fossil resources. The planning area also takes in the Shelf Road Recreation Area, the Beaver Creek WSA, the Beaver Creek ACEC, and the Phantom Canyon ACEC. The locations of the WSAs and ACECs are shown on [Map 2](#) found in Appendix 1.

Topography, vegetation, and climatic conditions vary throughout the planning area. Relatively mild winter conditions allow year round vehicular and non-motorized use of most of the BLM lands that occur within the planning area. The lack of heavy snowfall excludes snowmobiling and other winter sports activities as a significant use of the Public Lands in the Gold Belt region. Summer months are typically very warm and dry and the winters are characteristically mild with little or no snowfall accumulation. Average maximum daily temperatures at Canon City range from 84 degrees F. in July to 49 degrees F. in January, and the average precipitation is only 13 inches per year.

Cooler and wetter climatic conditions occur in other parts of the planning area at higher elevations. Elevations range from a maximum of 11,800 feet near Bison Reservoir in the northern part of the area, and to a minimum of 5,060 feet on the Arkansas River near the city of Florence in the southern portion of the area. Most of the northern portion lies between 9,000 and 10,500 feet in elevation and includes high mountainous terrain around the Cripple Creek Mining

District in the northeastern part, and gentle rolling hills surrounding Florissant Fossil Beds National Monument in the northwestern part. Below this northern high country the landscape consists of a jumble of steep mountains, hogbacks, escarpments, and rugged canyon lands that descend southward towards the Arkansas River Valley.

The populations most affected by this analysis reside in Canon City, Florence, Penrose, Cripple Creek, Victor, Pueblo, Colorado Springs, Denver, and other smaller communities, with residential subdivisions and ranches scattered throughout the area. The counties included in the planning area (Fremont, Teller, Park, and El Paso) experienced rapid population growth between 1990 and 2000, increasing from 449,000 to 603,000 during this decade. Forecasts for the same counties predict populations to continue to grow to an estimated 997,000 people by 2030 (Colorado Department of Local Affairs, Colorado Demography Section @ www.dola.state.co.us/demog/demog.htm).

DESCRIPTIONS OF THE ALTERNATIVES USED FOR THE ASSESSMENT

Four alternatives were developed to analyze and compare the benefits and environmental consequences that would result under different levels of access and use. Thus, each alternative represents a defined level of access and travel uses. The alternatives are named the Proposed Action, the Current Use Alternative (No Action), the High Use Alternative, and the Low Use Alternative.

Before reviewing the alternatives the reader should become familiar with the Travel Use Categories (see Table 1) that are used in the written descriptions, tables, and maps that are found throughout this document. The Travel Use Categories define the individual roads and trails in terms of the types of uses that are permitted on them. See [Appendix 2](#) for detailed definitions of the categories.

Table 1 - Travel Use Categories

Type Of Route	Symbol & Map Color	Permitted Public Uses And Explanations
Foot	F (orange)	Foot
Equestrian	E (fuchsia)	Foot, horse
Bicycle	B (green)	Foot, horse, bicycle
Motorcycle	M (yellow)	Foot, horse, bicycle, motorcycle
ATV	A (brown)	Foot, horse, bicycle, motorcycle, ATV
General	O (blue)	Open to all motorized, mechanized, and non-motorized uses (includes maintained dirt and gravel roads suitable for sedan travel, as well as un-maintained primitive 4WD roads)
User Created	UC (red)	None (includes unauthorized travel routes that were created after the Royal Gorge RMP was approved on 5/13/96)
Non-BLM	Non-BLM (pink)	Open to street legal motor vehicles and other mechanized and non-motorized uses (includes county, state and federal roads and highways that access BLM lands but do not fall under BLM management jurisdiction)
Non-system*	NS(Light Gray)	Foot and horse, in cases only where <i>permanent legal public access</i> exists **

** Routes included in the Non-system category are not available to the general public for motorized or mechanized uses. However, some are needed to provide administrative access for BLM personnel and authorized permit and right-of-way holders, and will continue to be used for administrative purposes. The routes included in the NS category are not managed for specific recreation uses but, as long as the routes are legally accessible (not blocked by private lands), they are available to the public for foot and horse travel.*

*** Permanent legal public access exists if the road can be legally accessed without trespassing over private lands; i.e., access is provided from county, state, or federal highways or via roads where the BLM has obtained a public easement.*

PROPOSED ACTION

The Proposed Action analyzes the effects of refining the OHV designation for most of the planning area from that of Limited to Existing Roads and Trails to one of **Limited to Designated Roads and Trails**. Furthermore, the Open designation in the Penrose Commons area would be changed to OHV **Limited to Designated Roads and Trails**. The current OHV **Closed** designation for the Beaver Creek WSA and the Deer Haven area would be retained. The Proposed Action is designed to provide for access and recreational uses within the limits of the lands and resources to sustain recreational impacts and traffic flows over time and within the capabilities of the BLM to maintain and monitor the proposed system of designated roads and trails. [Map 3](#) displays the Proposed Action and is located in the map pocket at the back of the document.

Three other travel management related issues were identified through scoping and addressed in this analysis. Under the Proposed Action mountain bikes would be limited to designated roads and trails. In addition, driving vehicles off roads to park, camp, and retrieve game would be limited to a maximum distance of 100 feet. Target shooting in the Oil Well Flats portion of the Garden Park sub-unit, the climbing and camping areas within the Shelf Road Climbing Area sub-unit, and the Penrose Commons sub-unit would be closed immediately; target shooting in the Dinosaur Flats portion of the Garden Park sub-unit would be phased out upon identification of a suitable replacement.

Under the Proposed Action, the establishment of designated travel uses would be guided by the need to maintain or improve the health of the Public Lands as defined by the Colorado Public Land Health Standards (See [Appendix 7](#)). Some “User Created” and existing roads and trails would be closed to public use. Other “User Created” routes, however, would be left open for use, and some new roads and trails would be constructed to facilitate access and provide for a variety of recreation uses.

Implementation of the Proposed Action would include the miles of routes by the respective travel use categories, shown in Table 2-1. When reviewing the data in this table the reader is reminded that each individual travel use category also allows uses by those categories that are listed above it. For example, the ATV category also allows uses by the Bicycle, Equestrian, and Foot categories. The locations of the routes by travel use categories are displayed on the Proposed Action [Map 3](#) (see map in back pocket).

Table 2-1 Miles of Routes by Alternatives and Travel Use Categories

Travel Use Category	Proposed Action	Current Use Alternative	Low Use Alternative	High Use Alternative
Foot	5.7	5.8	5.9	6.1
Equestrian	25.2	13.3	12.3	15.5
Bicycle	51.2	12.7	29.5	48.5
Motorcycle	0	0.1	0	3.4
ATV	16.2	9.1	1.2	30.9
General	59.2	94.6	36.0	85.2
Non-BLM	59.0	59.3	59.0	58.2
Non-system*	208.5	189.6	258.3	178.2
User created	0	12.6	0	0

** The Non-system category includes routes that are not available to the public for motorized use but that may be used by authorized persons for administrative purposes. Under the Proposed Action, this category includes 208.5 miles of routes, of which 94.3 miles do not have permanent legal public access, 80.6 miles have permanent legal public access, and 33.6 miles have access status that is either unknown or the acquisition of access is pending. Under the Proposed Action, the Non-system routes that have permanent legal public access can be used by the public for hiking and horseback riding, but are not available for motor vehicle or bicycle use.*

The Proposed Action would designate 75.4 miles of routes in the General and ATV categories. In addition, 59 miles of Non-BLM routes are also available, that are not affected by decisions

made in this plan. The Proposed Action also provides a total of 162.7 miles of restricted non-motorized access routes, consisting of 82.1 miles in the Bicycle, Equestrian, and Foot travel use categories, and 80.6 miles of Non-system routes with permanent legal public access that are also available for hiking and horseback riding.

In addition, the BLM proposes restricting target shooting in specific areas of the planning area. Target shooting in the Oil Well Flats portion of the Garden Park sub-unit, the climbing and camping areas within the Shelf Road Climbing Area sub-unit, portions of the Phantom Canyon Corridor and the Penrose Commons sub-units would be closed immediately; target shooting in the Dinosaur Flats portion of the Garden Park sub-unit would be phased out upon identification of a suitable replacement.

CURRENT USE ALTERNATIVE (NO ACTION)

The Current Use Alternative analyzes the effects of continuing under the current travel management OHV designation of **Limited to Existing Roads and Trails** for most of the planning area. The **Closed** designation for Beaver Creek WSA and the Deer Haven area would be retained, as would the **Open** designation for the Penrose Commons area. This represents the “No Action” alternative. [Map 4](#) displays the Current Use Alternative and is located in the map pocket at the back of the document.

Under the Current Use Alternative most of the Public Lands in the planning area would retain their current OHV designation of **Limited to Existing Roads and Trails**. The Penrose Commons area would remain as an OHV **Open** area with no limitations or restrictions to full use and travel by OHVs. Within OHV **Limited** areas all existing roads and trails with permanent legal public access would be available to OHV use except for those areas and individual routes that had been closed to motorized uses prior to this planning effort, including the Beaver Creek WSA, Deer Haven area, Booger Red Hill, and the lands in the upper reaches of Sand Gulch and Trail Gulch known as the “Wilson Exchange”. In addition, the routes identified in the road and trail inventory as “User Created”, that were created by recreational travel uses after the Royal Gorge RMP was approved (5/13/96), would also be closed. Future closures or restrictions of existing OHV routes to prevent resource damage or user conflicts would be evaluated and implemented as needed through separate individual activity plans or per emergency closure authorities provided under the Code of Federal Regulations (CFR). Likewise, future development of new roads or trails would also be evaluated and implemented through individual activity plan analysis. Existing policies pertaining to bicycle travel and the distance vehicles are permitted to travel off existing roads for parking, camping, and retrieving game would remain unchanged.

Implementation of the Current Use Alternative would include the miles of routes by the respective travel use categories, shown in Table 2-2. When reviewing the data in this table the reader is reminded that each individual travel use category also allows uses by those categories that are listed above it. For example, the ATV category also allows uses by the Bicycle, Equestrian, and Foot categories. The locations of the routes by travel use categories for the Current Use Alternative are displayed on [Map 4](#) (see map in back pocket).

The Current Use Alternative would continue motorized uses on 103.8 miles of existing routes in the General, ATV, and Motorcycle travel use categories. In addition, 59.3 miles of Non-BLM routes are also available, that are not affected by decisions made in this plan. The Current Use Alternative also provides a total of 89.4 miles of restricted non-motorized access routes, consisting of 31.8 miles in the Bicycle, Equestrian, and Foot travel use categories and 57.6 miles of Non-system routes with permanent legal public access that are also available for hiking, horseback riding, and bicycles.

Under this alternative, actions pertaining to the management of target shooting would not be addressed as a part of the travel management plan. Target shooting in Oil Well Flats and Dinosaur Flats would continue under existing restrictions.

Table 2-2 Miles of Routes by Alternatives and Travel Use Categories

Travel Use Category	Proposed Action	Current Use Alternative	Low Use Alternative	High Use Alternative
Foot	5.7	5.8	5.9	6.1
Equestrian	25.2	13.3	12.3	15.5
Bicycle	51.2	12.7	29.5	48.5
Motorcycle	0	0.1	0	3.4
ATV	16.2	9.1	1.2	30.9
General	59.2	94.6	36.0	85.2
Non-BLM	59.0	59.3	59.0	58.2
Non-system*	208.5	189.6	258.3	178.2
User created	0	12.6	0	0

** The Non-system category includes routes that are closed to motorized use by the public but that may be used by authorized persons for administrative purposes. Under the Current Use Alternative, this category includes 189.6 miles of routes, of which 107.2 miles do not have permanent legal public access, 57.6 miles have permanent legal public access, and 24.8 miles have access status that is unknown. Under the Current Use Alternative, the Non-system routes that have permanent legal public access can be used by the public for hiking, horseback riding, and bicycle riding but are not available for motor vehicle use.*

LOW USE ALTERNATIVE

The Low Use Alternative analyzes the effects of refining the OHV designation for most of the planning area from that of Limited to Existing Roads and Trails to one of **Limited to Designated Roads and Trails**. Furthermore, the **Open** designation in the Penrose Commons area would be changed to OHV **Limited to Designated Roads and Trails**. The current OHV **Closed** designation for the Beaver Creek WSA and the Deer Haven area would be retained. This alternative provides a comparatively low level of motorized access and recreational uses. [Map 5](#) displays the Low Use Alternative and can be found in the map pocket at the back of the document. Mechanized vehicles, including bicycles, would also be limited to designated roads and trails, and driving off roads to park, camp, and retrieve game would be limited to a maximum distance of 100 feet.

Under the Low Use Alternative, access and travel use designations for motorized, mechanized, and non-motorized uses would be established with a high emphasis placed on the protection of the natural resources. Many “User Created” and existing motorized routes would be closed to OHVs, and very few new roads and trails would be considered.

Implementation of the Low Use Alternative would include the miles of routes by the respective travel use categories, shown in Table 2-3. When reviewing the data in this table the reader is reminded that each individual travel use category also allows uses by those categories that are listed above it. For example, the ATV category also allows uses by the Bicycle, Equestrian, and Foot categories. The locations of the routes by travel use categories for the Low Use Alternative are displayed on [Map 5](#) (see map in back pocket).

Table 2-3 Miles of Routes by Alternatives and Travel Use Categories

Travel Use Category	Proposed Action	Current Use Alternative	Low Use Alternative	High Use Alternative
Foot	5.7	5.8	5.9	6.1
Equestrian	25.2	13.3	12.3	15.5
Bicycle	51.2	12.7	29.5	48.5
Motorcycle	0	0.1	0	3.4
ATV	16.2	9.1	1.2	30.9
General	59.2	94.6	36.0	85.2
Non-BLM	59.0	59.3	59.0	58.2
Non-system*	208.5	189.6	258.3	178.2
User created	0	12.6	0	0

** The Non-system category includes routes that are closed to motorized use by the public but that may be used by authorized persons for administrative purposes. Under the Low Use Alternative, this category includes 258.3 miles of routes, of which 98.4 miles of routes do not have permanent legal public access, 122.3 miles have permanent legal public access, and 37.6 miles have access status that is either unknown or the acquisition of access is pending. Under the Low Use Alternative, the Non-system routes that have permanent legal public access can be used by the public for hiking and horseback riding but are not available for motor vehicle or bicycle use.*

The Low Use Alternative would designate 96.2 miles of motorized access routes, consisting of 37.2 miles in the General and ATV travel use categories. In addition, 59 miles of Non-BLM routes are also available, that are not affected by decisions made in this plan. The Low Use Alternative also provides a total of 170 miles of restricted non-motorized access routes, consisting of 47.7 miles in the Bicycle, Equestrian, and Foot travel use categories, and 122.3 miles of Non-system routes with permanent legal public access that are also available for hiking and horseback riding.

In addition, the BLM proposes restricting target shooting in specific areas of the planning area. Target shooting in the Shelf Road Climbing Area sub-unit would be closed immediately. Target shooting in the Oil Well Flats and Dinosaur Flats portions of the Garden Park sub-unit would be allowed under existing restrictions. Specific high use recreation sites in the Phantom Canyon sub-unit would be closed to target shooting. Target shooting throughout the rest of the planning

area would not be affected.

HIGH USE ALTERNATIVE

The High Use Alternative analyzes the effects of refining the OHV designation for most of the planning area from that of Limited to Existing Roads and Trails to one of **Limited to Designated Roads and Trails**. Furthermore, the Open designation in the Penrose Commons area would be changed to OHV **Limited to Designated Roads and Trails**. The current OHV **Closed** designation for the Beaver Creek WSA and the Deer Haven area would be retained. This alternative provides for a comparatively high level of motorized access and recreational uses. [Map 6](#) displays the High Use Alternative and can be found in the map pocket at the back of the document. Mechanized vehicles, including bicycles, would also be limited to designated roads and trails, and driving off roads to park, camp, and retrieve game would be limited to a maximum distance of 100 feet.

Under the High Use Alternative, access and travel use designations for motorized, mechanized, and non-motorized uses would be established with a high emphasis placed on providing increased and enhanced recreational use. Some “User Created” and existing motorized routes would be closed to OHVs. Other “User Created” routes would be left open to OHVs, and some new roads and trails would be constructed to facilitate access and provide for a variety of recreation uses.

Implementation of the High Use Alternative would include the miles of routes by the respective travel use categories, shown in Table 2-4. When reviewing the data in this table the reader is reminded that each individual travel use category also allows uses by those categories that are listed above it. For example, the ATV category also allows uses by the Bicycle, Equestrian, and Foot categories. The locations of the routes by travel use categories for the High Use Alternative are displayed on [Map 6](#) (see map in back pocket).

Table 2-4 Miles of Routes by Alternatives and Travel Use Categories

Travel Use Category	Proposed Action	Current Use Alternative	Low Use Alternative	High Use Alternative
Foot	5.7	5.8	5.9	6.1
Equestrian	25.2	13.3	12.3	15.5
Bicycle	51.2	12.7	29.5	48.5
Motorcycle	0	0.1	0	3.4
ATV	16.2	9.1	1.2	30.9
General	59.2	94.6	36.0	85.2
Non-BLM	59.0	59.3	59.0	58.2
Non-system*	208.5	189.6	258.3	178.2
User created	0	12.6	0	0

**The Non-system category includes routes that are closed to motorized use by the public but that may be used by authorized persons for administrative purposes. Under the High Use Alternative, this category includes 178.2 miles of routes, of which 93.7 miles of routes do not have permanent legal public access, 53.7 miles have permanent legal public access, and 30.8*

miles have access status that is either unknown or the acquisition of access is pending. Under the High Use Alternative, the Non-system routes that have permanent legal public access can be used by the public for hiking and horseback riding, but are not available for motor vehicle or bicycle use.

The High Use Alternative would designate 177.7 miles of motorized access routes, consisting of 119.5 miles in the General, ATV, and Motorcycle travel use categories. In addition, 58.2 miles of Non-BLM routes are also available, that are not affected by decisions made in this plan. The High Use Alternative also provides a total of 123.8 miles of restricted non-motorized access routes, consisting of 70.1 miles in the Bicycle, Equestrian, and Foot travel use categories, and 53.7 miles of Non-system routes with permanent legal public access that are also available for hiking and horseback riding.

In addition, the BLM proposes restricting target shooting in specific areas of the planning area. Target shooting in the Oil Well Flats and Dinosaur Flats portions of the Garden Park sub-unit, the climbing and camping areas within the Shelf Road Climbing Area sub-unit, portions of the Phantom Canyon Corridor and the Penrose Commons sub-units would be closed immediately.

IDENTIFIED ISSUES AND CONCERNS

The issues for the Gold Belt TMP were identified through a public involvement process. Public involvement was achieved in three ways: interviews with affected stakeholders; formal public meetings; and informal meetings with representatives of various interests who were actively involved throughout the planning effort. In addition, issues and concerns were identified internally through meetings and discussions with BLM managers and resource specialists.

Interviews were conducted early in the planning process to identify the concerns of affected stakeholders. The interviews were conducted by BLM personnel and members of the Front Range Resource Advisory Council. Forty-three individual stakeholders were interviewed between August through November, 2002. The selected stakeholders included a cross-section of various affected users, including individual ranchers and adjacent landowners; representatives of clubs, organizations and government agencies that have an interest in how travel on the Public Lands is managed.

Public meetings were held in Canon City on 12/05/02 and 7/02/03, attended by a total 110 and 77 citizens, respectively. In addition to the comments and opinions that were expressed during the meetings, attendees were encouraged to submit written comments. As a result, a total of 165 individuals and organizations submitted written comments.

In addition to the stakeholder interviews and the comments received at the public meetings, BLM personnel communicated and met with individuals and representatives who chose to be more actively involved in this planning effort, including: representatives of environmental organizations such as: the Rocky Mountain Recreation Initiative, Colorado Mountain Club, Sierra Club, and Audubon Society; representatives of motorized recreation groups, including the Colorado Motorized Trails Association, Rocky Mountain Trials Association, the Colorado Off-Highway Vehicle Coalition, and local ATV and 4WD clubs; and representatives of non-

motorized users, including the Backcountry Horsemen of America, and local hikers and bicycle users. Affected holders of grazing permits and rights-of-way (power transmission lines, irrigation ditches, radio towers, etc.) were also contacted to identify their access needs.

As a result of public involvement, five key issues were identified for the Gold Belt Travel Management Plan:

1. **PROVIDING APPROPRIATE AND REASONABLE ACCESS** – The high number of comments related to this issue indicates a need to provide public access and travel opportunities that benefit all types of users (motorized, mechanized and non-motorized; recreational and non-recreational). At the same time, the majority of the respondents recognized the need to limit or restrict access where it is necessary to protect important resource values or to avoid conflicts with other uses.
2. **ACHIEVING COMPLIANCE** – The comments pertaining to this issue indicate that people are concerned that user acceptance and compliance with new OHV travel regulations will not be easily achieved. Most of the comments related to this issue supported the need for restricting travel to designated routes but recommended that the BLM employ a variety of measures to ensure that the new regulations will be effectively implemented, including such measures as:
 - a. setting priorities for implementing travel management decisions so that the areas that need the most attention are treated first;
 - b. maintaining roads and trails so that they are safe and useable;
 - c. providing on-the-ground signing of designated routes;
 - d. providing location maps of designated routes;
 - e. promoting acceptable use practices, such as the “Tread Lightly” and “Leave No Trace” programs, and providing other user education programs/materials that promote low impact travel and uses of the Public Lands;
 - f. recruiting organized user groups and clubs to help monitor and maintain trails and to promote acceptable practices;
 - g. providing adequate BLM personnel to monitor use and enforce travel regulations;
 - h. ascertaining adequate funding sources to manage and maintain the transportation system.
3. **ABATING THE PROLIFERATION OF USER CREATED ROUTES and CUMULATIVE IMPACTS OF OHV ACTIVITIES** – The comments related to these issues indicate that many people are concerned with the growing amount of OHV use on Public Lands and the increasing impacts that OHV use is having on the natural resources, especially to wildlife habitat, riparian habitat, and water quality. Many respondents supported the need to limit both motorized and non-motorized access and travel to benefit and protect the overall health and condition of the Public Lands.
4. **REDUCING USER CONFLICTS** - Comments related to this issue indicate that many people are concerned about the conflicts that exist between non-compatible motorized and non-motorized recreation uses and support travel management actions that will better serve the needs of all types of recreation users. Many respondents also cited conflicts and

safety concerns related to target shooting that exists in some parts of the planning area. A discussion of target shooting issues and how target shooting would be affected by travel management decisions is included in Recreation section of the document.

5. **RESPONDING TO POPULATION GROWTH AND INCREASED USE OF PUBLIC LANDS** - A lot of people expressed awareness of the increased amount of use that the Public Lands have experienced in the last ten years. They are concerned about the impacts that additional population growth will have on the ability of the BLM to manage even greater demands for recreation on the Public Lands in the future. In order to keep in step with future growth, many respondents recognized and supported the need to plan and implement travel management actions to meet expected increased recreation demands on the Public Lands.

DESIRED FUTURE CONDITIONS

Desired Future Conditions (DFC) are short vision statements that describe the major goals of the TMP and that directly respond to the major issues and concerns that were identified through public involvement.

1. **MAINTAIN AND IMPROVE PUBLIC LAND HEALTH** – Environmental impacts resulting from access and travel uses on the Public Lands are improving or moving towards being in compliance with the Public Land Health Standards. (Responds to Issues 3 and 5)
2. **ENHANCE RECREATION OPPORTUNITIES** - Access and travel uses on the Public Lands are improving or moving towards being in compliance with the Recreation Management Guidelines for Meeting Public Land Health Standards and other applicable recreation management planning documents. User conflicts and safety issues are satisfactorily resolved. (Responds to Issues 1, 3, 4 and 5)
3. **PROVIDE APPROPRIATE AND REASONABLE ACCESS** – The Public Lands are served by an effectively managed and maintained system of roads and trails that provides access and travel opportunities for legitimate recreational and non-recreational purposes for motorized, mechanized and non-motorized users. (Responds to Issues 1 and 2)

OTHER PERTINENT BACKGROUND INFORMATION

This section of the document contains information pertaining to the procedures, methods, and other pertinent considerations that the members of the planning team utilized in conducting this assessment.

1. TRENDS AND ASSUMPTIONS

The following trends and assumptions were considered to account for continued population growth and increased demands on BLM lands for recreation and other uses that are expected to occur over the next twenty years.

- Traffic levels on roads and trails will increase.
- Residential development of lands adjacent to BLM lands will increase.
- Road densities within private lands surrounding BLM will increase.
- Acres of wildlife habitat on private lands will continue to shrink and wildlife will become increasingly more dependent on BLM lands for habitat needs.
- Demands for all types of recreation uses will increase.
- Without adequate maintenance, soil erosion from roads and trails will increase.
- Conflicts between competing recreation uses will increase.
- Technological advances will produce mechanized and motorized vehicles that will enable people to go places where they could not go before.
- Technological advances in GPS, computerized mapping applications, and telecommunications will encourage increased off-trail exploration of inaccessible areas.
- Areas that provide solitude and low levels of use will decrease.
- Illegal activities will increase (dumping, off road travel, theft of forest products, fire violations, drug labs, vandalism, etc.)
- Costs for law enforcement and travel management compliance will increase.
- Costs of maintaining roads and trails will increase.
- Parking at trailheads will become more congested.
- Successful management of roads and trails is dependent on BLM having adequate funding and staffing.
- Existing roads that are closed to wide vehicles (4-wheeled) will vegetate and naturally reclaim themselves over time; traffic will gradually be confined to a narrower tread and produce lower levels of soil loss than what occurs along the existing roadway. The same applies to existing ATV routes that are reverted to other modes of travel that require narrower travel ways. In other words, narrower trails expose less disturbed surface areas and are subject to less erosion than wider trails.
- Motorized access increases opportunities for dispersed camping, target shooting, and hunting than non-motorized access.
- Increased human activity will increase the potential for fire ignition.
- Resource damage is worse in wet periods, or when snow covers routes and makes them harder to see.
- The degree to which travel related activities adversely affect wildlife can be directly related to the type and amount of traffic that occurs on the travel routes: i.e., high levels of traffic are more disruptive than low traffic levels; uses with high noise levels are more disruptive than quiet uses.
- The degree to which travel related activities adversely affect soil stability, vegetation, and water quality is directly related to the type and amount of traffic that occurs on the travel routes: i.e., routes with high levels of surface disturbing traffic require more maintenance to control erosion and cause more sedimentation and damage to vegetation than routes with low traffic levels.

2. SCALES OF ANALYSES

The travel management assessments for the Gold Belt TMP project utilized a range of

geographic scales of analysis, including the Regional, Planning Area, Watershed, and Sub-units.

Regional Scale Analysis - The regional scale analysis was used to respond to the need to identify the origins of the affected users and the locations of existing recreational travel opportunities that surround the Gold Belt planning area. The regional scale analysis provided a "big picture" setting for the project. It was used to compare the unique qualities and recreational travel opportunities that are found in the Gold Belt planning area with those qualities and opportunities that occur in other parts of the region. The regional scale analysis produced the following information and conclusions that guided the development and analysis of the alternatives that were considered in this assessment. A map of the region ([Map 7](#)) with the affected population centers and locations of existing recreational travel opportunities is located in Appendix 3.

Origins of affected users - The populations most affected by this proposal reside in Canon City, Florence, Penrose, Cripple Creek, Victor, and other smaller communities, residential subdivisions, and ranches scattered throughout the immediate planning area. Significant numbers of users also originate from larger cities located outside of the immediate planning area, including Pueblo, Colorado Springs, and the Denver metro area.

Existing recreational travel opportunities - Numerous federal, state, county, city, and community lands are scattered throughout the region that provide for a wide variety of recreational travel and use experiences. Many miles of motorized recreational routes are available in other parts of the region that either do not occur or that are only found in limited amounts within the Gold Belt planning area. Over 1,500 miles of 4WD, ATV, and motorcycle routes occur on BLM and National Forest lands in the vicinity of the planning area, including: Texas Creek Trail System, Captain Jack Trail System, Temple Mountain, Four Mile Trail System, Corral Creek, Rampart Range and Divide Trail Systems, and numerous trails on the San Carlos Ranger District, including Tanner Trail and the Rainbow Trail. An abundance of bicycle, horse, and hiking trails also occur throughout the region.

Planning Area Scale Analysis - An analysis was also conducted at the planning area scale to respond to the need to identify the important qualities and recreation travel opportunities that exist within the immediate Gold Belt planning area. When combined with the information and conclusions that resulted from the regional scale analysis, the planning area scale analysis was used to guide the development of a travel management alternative that would respond to both local and regional needs for maintaining ecosystem health and providing recreation travel opportunities. The combined regional and planning area assessments yielded the following information and conclusions.

General characteristics of the existing transportation system - An inventory of the existing transportation system was conducted as part of the planning area analysis. A total of 397 miles of roads and trails were inventoried and identified on Public Lands

within the planning area.

The majority of the existing routes in the planning area are primitive native surface roads that were created for mining, ranching, removing (chaining) dense stands of pinyon and juniper trees, and for constructing retention dams. Few of these roads were "constructed" with recreation uses in mind and many were not designed or engineered for sustained motorized travel. Some of the roads that were made for constructing retention dams were intended for temporary access and have either become completely or partially overgrown with vegetation.

Very few constructed single-track trails occur in the area. Most single-track routes were created along drainage bottoms by cattle, which are also used by people for hiking, horseback riding, and accessing areas with OHVs.

Land ownership patterns - The potential for increasing and enhancing recreational travel opportunities is limited by land ownership patterns. The Public Lands in the area consist of scattered blocks of varying sizes that are separated by surrounding private lands. The scattered nature of the BLM lands severely limits the opportunities for developing travel routes and loops that could provide full-day or half-day recreation experiences.

Classified special management areas - The potential for increasing and enhancing recreational travel opportunities is also constrained by existing classified special management areas, including the Beaver Creek WSA, the Beaver Creek ACEC, the Phantom Canyon ACEC, and the Garden Park ACEC. The existence of these special management areas places limits on the locations of travel routes and motorized uses.

Major attractions - The Gold Belt planning area includes four unique features that set the area apart from its regional setting; the Garden Park Fossil Area, the Shelf Road Climbing Area, the Beaver Creek WSA, and the Gold Belt National Scenic and Historic Byway. Each of these features attracts large numbers of visitors, including local and regional residents and out-of-state tourists. The Garden Park Fossil Area is internationally known for many important dinosaur discoveries. The Shelf Road Climbing Area attracts rock climbers from across the nation, as well as from foreign countries. The Gold Belt Byway is a popular scenic auto loop that encircles the heart of planning area, attracting thousands of visitors annually. The Beaver Creek WSA is a rugged and sparsely trailed block of Public Lands that provides a high degree of solitude and challenge that is only found in a few other areas along the Front Range. The need to protect the unique resources and preserve the qualities of these attractions was an important consideration in the development and analysis of the travel management alternatives.

Other significant recreational uses - Except for the areas described above as major attractions and the classified special management areas and isolated inaccessible blocks of BLM lands, recreational travel uses throughout most of the remaining portions of the planning area consists of a mixture motorized, mechanized, and non-motorized uses.

Motorized uses predominate in some areas, while non-motorized uses predominate in other areas. The locations of these areas are defined and discussed below in the Sub-units scale analysis.

The one travel use opportunity that stands out as having important local and regional recognition is horseback riding. This is due largely to the existence of local organized horseback riding clubs whose members are familiar with the country and who have communicated with other horseback riding enthusiasts throughout the region. The regional importance of the area for hiking and bicycling is low, due primarily to the lack of developed hiking and biking trails. Except for the Independence Extreme Jeep Trail, the planning area is not considered to be a destination attraction for OHV users, due to the lack of sufficient miles of suitable routes to provide full-day riding experiences.

Weather and climate - The Gold Belt area has the reputation for being the "banana belt" of the eastern slope of the Rockies. The Canon City Chamber of Commerce proclaims Fremont County as the "climate capital of Colorado". This is not an empty boast, as the climate is in fact much warmer than most other parts of the state, particularly during the winter months. Periods when access is limited by snow are short and infrequent and opportunities for snowmobiling, snowshoeing, and cross-country skiing are typically not available. With the exception of areas above 10,000 feet, the lack of snow and the high number of sunny and mild days permit year-round access and use of most of the BLM lands in the Gold Belt planning area. Visitation and use of the Shelf Road Climbing Area, including camping at the Sand Gulch and The Bank Campgrounds, occurs throughout the winter months. Indeed, conditions for rock climbing and other recreational uses are considered by most users to be more favorable in the winter, when temperatures are cooler, than during the hot summer months. The mild winters that are characteristic for the area does, however, have its down side. Because most of the planning area is accessible year around, many of the roads are highly susceptible to rutting and erosion following periodic snowstorms when warmer temperatures melt the snow and road surfaces become muddy.

Watershed Scale Analysis - The watershed scale analysis was used to respond to the need to identify impacts from both private and public lands within a defined landscape. A watershed scale analysis was done on the 6th level watersheds in the Gold Belt planning area. The analysis displays the impacts from all the roads within the watersheds, regardless of ownership. The watershed scale of analysis helps to display the cumulative impacts of roads and other forms of development. This is important because as more private land in the planning area becomes developed, the Public Lands become more valuable as wildlife habitat, intact watersheds, and open space. As private lands become more developed, the impacts resulting from the greater number of roads and the number of people traveling on them increase substantially. When looked at from the watershed scale, this increase in impacts from roads and other forms of development can have a dramatic effect on wildlife, water quality, vegetation and other resources. The 6th level watershed provides an appropriate scale within the Gold Belt planning area to see the differences in impacts on private and public lands.

Sub-unit Scale Analysis - An analysis was done at the sub-unit level to respond to the need to consider the special qualities and travel use opportunities that exist in different portions of the planning area. A total of twenty-one different sub-units were identified, based primarily on breaks along adjoining private and state-owned land boundaries, classified special management area boundaries, access status (lack of permanent legal public access) and by natural topographical features that limit travel management options. [Map 8](#) shows the locations of the sub-units and can be found in Appendix 4. Brief descriptions of the sub-units are listed below.

Little Mack Gulch Sub-unit (#1) - The Little Mack Gulch sub-unit is a relatively small parcel (2,800 acres) of BLM lands located along the western edge of the planning area. The west side of the sub-unit is bordered by Colorado State Highway 9, the western boundary of the Gold Belt planning area. The north, east, and south sides of the sub-unit adjoin private lands.

The area receives relatively low amounts of recreation use, and most of the recreation activity occurs during deer and elk hunting seasons.

The desired future condition for the Little Mack Gulch sub-unit is to maintain the area for wildlife and preserve riparian habitat. Management objectives for this sub-unit include:

- *Resolve the issue of legal public access where BLM 5750 crosses private inholding.*
- *Protect the riparian areas*
- *Protect the historic homestead site*
- *Maintain wildlife habitat*
- *Allow appropriate dispersed and undeveloped recreation opportunities*

Deer Haven Sub-unit (#2) - The Deer Haven sub-unit is named for the parcel of lands that were acquired by the BLM in 1992, known as the Deer Haven Ranch. The sub-unit consists of the Deer Haven Ranch acquired lands and other surrounding BLM lands on Thompson Mountain and the extreme western edge of Rice Mountain. A small piece of the sub-unit extends west of the main area and includes Miner Gulch, Binkley Gulch, and Seymour Gulch.

Most of the lands in the Deer Haven sub-unit were closed to OHV use upon acquisition by BLM in 1992. This closed status was continued in the Royal Gorge RMP.

The area is used primarily for hunting, horseback riding, and hiking. Dispersed camping also occurs along the main motorized roads, primarily during deer and elk hunting seasons.

The desired future condition for the Deer Haven sub-unit is to preserve the area's natural character and enhance wildlife habitat. Management objectives for this sub-unit include:

- *Enhance wildlife habitat*
- *Allow appropriate dispersed and undeveloped recreation*

Gribble Mountain Sub-unit (#3) - The Gribble Mountain sub-unit consists of an isolated parcel of BLM that is mostly surrounded by private lands. The sub-unit borders the Twin Mountain sub-unit on the east, and the Deer Haven sub-unit on the north. The sub-units are isolated from each other by extreme mountainous terrain, and no roads or trails connect them together.

The area is reached via US Highway 50, running along the western edge of the sub-unit. No other access roads exist in the sub-unit. The area is extremely rugged and can only be traversed on foot.

The area is bisected by Current Creek, running through a deep and extremely rugged canyon. Due to the extreme terrain and lack of roads or trails, the area receives very little use except by occasional hunters, hikers, and fishermen.

The lack of permanent legal public access and inaccessible natural terrain limit opportunities for enhancing travel uses in the area. The desired future condition for the Gribble Mountain sub-unit is to protect the isolated, rugged, mountainous semi-primitive setting. Management objectives for this sub-unit include:

- *Protect the area as unroaded, untrailed, and undeveloped*
- *Maintain wildlife habitat*
- *Provide opportunities for solitude and challenging non-motorized recreation*

Twin Mountain Sub-unit (#4) - The Twin Mountain sub-unit is an isolated parcel of BLM that is virtually surrounded by private lands. The sub-unit borders the Gribble Mountain sub-unit on the west, and the Seep Springs sub-unit on the northeast. The sub-units are, however, separated by steep mountainous terrain with no existing roads or trails directly connecting them to one another.

The sub-unit is reached from US Highway 50, which skirts the extreme southern edge of the area and is linked to a 4WD access road that provides the only motorized public access into a small portion of the sub-unit. The small area served by these roads is separated from the larger portion of the sub-unit by steep mountainous terrain.

Access to the top of Twin Mountain, and to the greater share of the sub-unit, is provided by a road that is not available for use by the general public. Access via this road is limited to the electronics site on top of the mountain and to holders of BLM grazing permits. This road connects to a number of primitive roads that access other portions of the area that also are not available for use by the public.

Due to its isolated situation, access by the general public into most of the area is limited to cross-country foot travel. Consequently, most of the area receives little use, except by occasional hunters and hikers. The small area adjacent to Highway 50 is utilized mostly for hunting, hiking, target shooting, and driving 4WDs for pleasure.

The lack of permanent legal public access and inaccessible natural terrain limit opportunities for enhancing travel uses in the area. The desired future condition for the

Twin Mountain sub-unit is to preserve the scenic mountainous landform, while providing open space for wildlife and compatible forms of recreation. Management objectives for this sub-unit include:

- *Preserve the scenic and mountainous landscapes*
- *Maintain wildlife habitat*
- *Allow for undeveloped and dispersed recreation*

Garden Park Sub-unit (#5) - The Garden Park sub-unit is located six miles north of Canon City on either side of Fourmile Creek. The sub-unit includes the Garden Park ACEC. Parts of the ACEC have also been designated as a Research Natural Area and as a National Natural Landmark. Protection of the known and potential fossil-bearing sites is a critical priority in this sub-unit. The area is also habitat for *Eriogonum brandegei*, a buckwheat plant that is a BLM sensitive species.

Thousands of tourists drive through the sub-unit annually via the Gold Belt Scenic and Historic Byway. Due to its proximity to Canon City, the Garden Park sub-unit is very popular with local residents who utilize the area for all types of motorized and non-motorized activities.

The sub-unit attracts local residents for hiking, horseback riding, bicycle riding, and driving 4WDs, ATVs, and motorcycles. A significant amount of off-road 4WD, ATV, and motorcycle play occurs in parts of the sub-unit. One of most popular activities is target shooting (see [Map 15](#) in the Affected Environment section of the Recreation assessment). Target shooting is prohibited throughout most of this sub-unit except for two small areas that are open to target shooting (one in the Dinosaur Flats area and one in Oil Well Flats). The Dinosaur Flats target shooting area was recently relocated to respond to safety issues that existed at the old location.

The lack of legal public access limits travel management opportunities in parts of this sub-unit. The public has enjoyed access across private lands via existing roads that may not be available in the future. The BLM is not authorized to maintain roads claimed under county jurisdiction; specifically, FCR #F-35 (aka BLM 5940).

The desired future condition for the Garden Park sub-unit is to enhance and protect the area's special plant, fossil resources, and scenic geological features, while allowing compatible recreation uses. Management objectives for this sub-unit include:

- *Protect fossil resources*
- *Protect sensitive plant species*
- *Protect the unusual and highly scenic geologic features*
- *Resolve target shooting conflicts with other uses*
- *Eliminate parallel and duplicate routes*
- *Reduce conflicts between motorized, mechanized, and non-motorized users*
- *Provide recreational opportunities that are compatible with the special resources*
- *Resolve the road maintenance issue with Fremont County*

- Protect erosive soils

Seep Springs Sub-unit (#6) - The Seep Springs sub-unit consists of a small block of BLM lands located 10 miles northwest of Canon City that is covered by an extensive network of old mining roads. Shaws Park lies immediately to the south of the sub-unit.

Motorized recreation uses are well established in this sub-unit. The area is primarily utilized for driving 4WDs, ATVs, and motorcycles. FCR 69 and F-24 provide a popular alternate route to Red Canyon Park for high clearance 4WD vehicles. The area is also used for dispersed camping, hunting, and target shooting, and for lesser amounts of hiking and horseback riding.

Several wet perennial springs are located along the lower end of Seep Springs Draw. The soil types in the area are subject to high erosion potential.

The escarpment that forms a semi-circle around the north and east sides of the sub-unit is mostly inaccessible to motor vehicles. The top of this escarpment offers outstanding vistas into Red Canyon and the Garden Park valley. Another high escarpment located along the south edge of the sub-unit overlooks Seep Springs Draw and Shaws Park. A small natural arch is located in the area.

FCR F-24 is a primitive un-maintained county road that accesses the western end of Red Canyon Park, and also serves as the only public access to the network of roads in the Seep Springs sub-unit. The BLM is not authorized to maintain roads claimed under county jurisdiction. Some motorized use is occurring from Shaws Park by users who either knowingly or unknowingly trespass across the private ranch lands to access the area.

The desired future condition for the Seep Springs sub-unit is to preserve the unusual and scenic geological uplift and the diversity of wildlife, while providing for a variety of recreation uses. Management objectives for this sub-unit include:

- Control motorized uses from private lands*
- Resolve road maintenance issue with Fremont County*
- Maintain the quiet character of Red Canyon Park*
- Protect springs and wet areas*
- Maintain the visual quality of the area*
- Protect the natural arch and other geologic features*
- Minimize impacts to soils and vegetation*
- Allow appropriate recreation uses*

The Gulches Sub-unit (#7) - The Gulches is located 10 miles north of Canon City and is named for the three gulches that are contained within the sub-unit: South Cedar Gulch, Cedar Gulch, and Long Gulch. Portions of the sub-unit are difficult to access and are only lightly used by the general public.

Legal public access into the three gulches is limited to a single primitive 4WD road that spurs off BLM 5825 and leads into the east end of Long Gulch where it ties in with the network of old primitive roads that extend up each of the gulches. All three of the "gulch" roads extend from private lands located along the east boundary of the sub-unit. All three roads extend westward into a State School Section and to private lands. Some of the motorized use originates from adjoining private lands, and has increased significantly in the past three years.

A developed spring and water transmission pipeline are located in Long Gulch, and grazing is permitted throughout the sub-unit. The State School Section is not open to the general public for any purposes, including hunting or recreating.

The desired future condition for The Gulches sub-unit is to maintain the natural open space, wildlife habitat, and backcountry setting, while providing recreation uses that are compatible with maintaining the quiet character of the Shelf Road Climbing Area. Management objectives for this sub-unit include:

- *Resolve exclusive access issues from adjoining private lands*
- *Enhance recreational opportunities that would maintain the remote backcountry setting of the area*
- *Maintain wildlife habitat*

Shelf Road Climbing Area Sub-unit (#8) - The Shelf Road sub-unit is located 12 miles north of Canon City. The focal point of this sub-unit is the Shelf Road Climbing Area. The eastern edge of the sub-unit is traversed by FCR 509B, and is part of the Gold Belt National Scenic and Historic Byway. Two developed recreation sites, Sand Gulch Campground and The Bank Campground, are also located within this area.

BLM road 5820 is also included in the Fremont County Road System as F-34, but is not maintained by the county. The BLM is not authorized to maintain roads claimed under county jurisdiction. The road to the Cactus Rose climbing walls also leads to private property. This road also has a gate located where it joins FCR 509B, and is temporarily closed when conditions are wet or icy.

In addition to rock climbing, camping, and viewing scenery from the Gold Belt Byway, the sub-unit is used for hiking, horseback riding, bicycle riding, and driving 4WDs, ATVs, and motorcycles.

The desired future condition for the Shelf Road Climbing Area sub-unit is to maintain the natural landscapes and quiet surroundings for the rock climbing opportunities and other compatible recreation uses. Management objectives for this sub-unit include:

- *Maintain the quiet natural setting of the Shelf Road Climbing Area*
- *Preserve the scenic geologic features and landforms along the Gold Belt Byway*
- *Resolve the road maintenance issue with Fremont County*
- *Enhance opportunities for sport rock climbing*

- Resolve the safety issues with the road to the Cactus Rose climbing walls

Bare Hills Sub-unit (#9) - The Bare Hills sub-unit is located 14 miles northwest of Canon City and is named for the sparsely timbered hills that lie immediately west of the sub-unit. The sub-unit includes the upper ends of Espinosa Gulch, Sand Gulch, and Trail Gulch, and includes a parcel of land that was acquired by the BLM in October, 2002, known as the Wilson property.

The primary motorized access road to the sub-unit is BLM 5820 that extends from the Shelf Road Climbing Area sub-unit to the east boundary of the Wilson property. This property contains about five miles of primitive ranch roads. The property was posted against trespassing when it was under private ownership. After it was acquired by the BLM, access to the area was limited to foot, horse, and bicycle travel until a travel management plan could be completed to determine appropriate uses.

The area is used for motorized, mechanized, and non-motorized recreation activities, including dispersed camping and hunting. The area contains high quality habitat for deer, elk, and black bear.

The sub-unit contains three developed water wells (two windmill powered and one solar-powered). An old log cabin is located in Sand Gulch that was acquired in the Wilson property.

The desired future condition for the Bare Hills sub-unit is to maintain the natural open space, wildlife habitat, and backcountry setting, while providing recreation uses that are compatible with maintaining the quiet character of the Shelf Road Climbing Area. Management objectives for this sub-unit include:

- Resolve exclusive access issues from adjoining private lands*
- Enhance recreational opportunities that would maintain the remote backcountry setting and are compatible with the quiet use of the area*
- Maintain wildlife habitat*

Booger Red/Hole-in-the-Ground Sub-unit (#10) - This sub-unit is named after Booger Red Hill and a remote and rugged section of Fourmile Creek that the early settlers in the area referred to as the hole-in-the-ground. The sub-unit lies along the eastern and southern edges of High Park, about 7 miles west of Cripple Creek.

Public access to the sub-unit is limited to three existing roads, Fremont and Teller County Road 11 (High Park Road), BLM 5805, and BLM 5808. The existing trail to Fourmile Creek extending from BLM 5805 crosses a corner of private lands and is not legally accessible to the public. Some motorized use is originating from adjoining private lands.

Motorized recreation activities are limited to two relatively small areas located in the northeastern and southwestern portions of the sub-unit, and include driving for pleasure (OHVs), dispersed camping, and hunting. The remaining parts of the sub-unit are closed

to motor vehicles, including Booger Red Hill, Little High Creek, High Creek, and Fourmile Creek. A developed trail head is located at the end of BLM 5808, providing parking for hiking and horseback riding.

Riparian habitat occurs along High Creek, Little High Creek, and Fourmile Creek. The area contains high quality habitat for deer, elk, black bear, and bighorn sheep. Rainbow and brown trout are common in Fourmile Creek.

The desired future condition for the Booger Red/Hole-in-the-Ground sub-unit is to preserve the open space, the parklands, and the remote and rugged sections of Fourmile and High Creeks, while allowing appropriate recreation use. Management objectives for this sub-unit include:

- *Resolve exclusive access issues from adjoining private lands*
- *Protect the High and Fourmile Creek watersheds*
- *Maintain wildlife habitat*
- *Protect the integrity of the site of Native American concern*
- *Enhance recreational opportunities that would maintain the remote backcountry setting and are compatible with the quiet use of the area*
- *Preserve the visual qualities of the sub-unit*

Mt. Pisgah/Little Pisgah Sub-unit (#11) - The Mt. Pisgah/Little Pisgah sub-unit includes the area between Mt. Pisgah and Little Pisgah Peak that contains a mix of both BLM and private lands. The sub-unit is located 4 miles west of Cripple Creek. Public access into much of the area is extremely limited by the rugged nature of the terrain and interspersed private lands.

The primary public access into the sub-unit is provided by the Shelf Road (Fremont County Road 509B and Teller County Road 88). The Shelf Road crosses scattered parcels of BLM and private lands where it passes through the sub-unit, and no existing roads or trails connect with it that access the Public Lands.

Use of the area is concentrated along the Shelf Road, a part of the Gold Belt Byway. This section of the Shelf Road is highly scenic and the primary use is by tourists driving for pleasure. Use of the remaining portions of the sub-unit originates from adjoining private lands.

The sub-unit contains important wildlife habitat for deer, elk, black bear, and bighorn sheep.

The desired future condition for the Mt. Pisgah/Little Pisgah sub-unit is to preserve the rugged scenic landscape and wildlife habitat, while allowing appropriate backcountry recreation uses. Management objectives for this sub-unit include:

- *Preserve the visual qualities of the sub-unit*
- *Maintain wildlife habitat*

- *Maintain the rural character of the lands surrounding the Shelf Road*
- *Enhance recreational opportunities that would maintain the remote backcountry setting*

Cooper Mountain Sub-unit (#12) - The Cooper Mountain sub-unit is located 10 miles northeast of Canon City. The sub-unit is an extensive parcel of Public Lands that surround a large private in-holding, presently in the process of being acquired by BLM. Public access and travel opportunities in the sub-unit are presently very limited but the finalization of this acquisition will provide opportunities for enhancing public access into the area.

Access from Garden Park is limited to a rugged 4WD road that enters the southwestern portion of the sub-unit from private lands. The current landowner has allowed the public to access this road but the BLM does not have a public easement across the private lands. The road located along Milsap Creek serves the Aquila powerline, extending from private lands on both ends and not available for public use.

The area contains good habitat for deer, elk, and black bear. Mexican spotted owls inhabit portions of the area.

The desired future condition for the Cooper Mountain sub-unit is to preserve the area's scenic mountainous qualities for open space, wildlife habitat, and appropriate recreation uses. Management objectives for this sub-unit include:

- *Preserve the visual qualities of the sub-unit*
- *Enhance wildlife habitat*
- *Enhance recreational opportunities that would maintain the remote backcountry setting*

Beaver Creek Sub-unit (#13) - The Beaver Creek sub-unit is a large parcel (36,000 acres) that encompasses the Beaver Creek WSA and adjoining Public Lands and is located about 15 miles northeast of Canon City. The area also includes State Wildlife Area lands within the West and East Forks of Beaver Creek and surrounding Skagway Reservoir.

The sub-unit is almost entirely surrounded by private and State Trust Lands except where it borders the Phantom Canyon Corridor sub-unit along its western boundary. Due to its status as a WSA, the lands within the boundary were designated in the RMP as an OHV Closed area and are limited to foot and horse travel only. Those BLM lands that are outside of the WSA boundary and adjoin private or State Trust Land are not legally accessible to the public.

The area contains very few roads and trails. Existing roads are concentrated in two small portions of the sub-unit in the Turkey Creek area and south of Skagway Reservoir. The roads in Turkey Creek are outside of the WSA and are used for administrative access only.

The principal public access points into the sub-unit are located in the Beaver Creek State

Wildlife Area, at Skagway Reservoir, and from the Holbert Trailhead in Phantom Canyon. Most use in the area is concentrated along the trails that originate from these main access points. Recreational uses include hiking, horseback riding, fishing, and dispersed camping.

The area contains valuable wildlife and fishery habitat. Mexican spotted owl occurs in parts of the sub-unit.

The desired future condition for the Beaver Creek sub-unit is to protect the wilderness values of the WSA, and to manage the lands outside the WSA to maintain the natural, historic, and scenic qualities. Management objectives for this sub-unit include:

- *Maintain the wilderness character of the WSA*
- *Enhance wildlife habitat*
- *Maintain the natural, historical and scenic qualities of the lands outside the WSA*
- *Enhance recreational opportunities that would maintain the remote backcountry setting*

Penrose Commons Sub-unit (#14) - The Penrose Commons sub-unit (aka Penrose Chaining Area) is a 3,100 acre parcel of BLM that is completely surrounded by private lands. The area has historically been heavily used by local communities for wood cutting, mining, rock collecting, target shooting, cattle grazing and motorized recreation.

All of the lands in the parcel have been identified for disposal by the BLM. The western one-fifth of the sub-unit, containing about 800 acres, is currently in the process of being exchanged for property in the Cooper Mountain sub-unit.

The Royal Gorge RMP designated all of the lands within the sub-unit as an OHV Open area, with no limitations or restrictions to full use and travel of off-highway vehicles. In 2001, in response to a need to protect the resources in the area, the Field Manager implemented a special rule that limited OHVs to existing roads and trails. This order must be renewed annually until the travel management plan is completed and OHVs are limited to designated routes. This rule remained in effect through July 2003 but has since expired and the area has reverted to an Open designation.

The only public access road to the sub-unit is Fremont County Road 127. All of the other roads and trails either dead-end inside the sub-unit or go onto adjoining private lands. Motorized uses by 4WDs, ATVs, and motorcycles are well-established throughout the area. The Independence Extreme Jeep Trail is located in the sub-unit, and is only useable for specially designed and equipped 4WD vehicles. The area is also used for dispersed camping, hunting, and target shooting. The area is included within an active grazing allotment and both commercial and personal permits are issued in the area for collecting decorative stone.

The desired future condition for the Penrose Commons sub-unit is to enhance motorized recreation in concert with other uses. Management objectives for this sub-unit include:

- *Mitigate soil erosion concerns related to high motorized recreation use levels*
- *Resolve target shooting issues*
- *Protect springs and seeps in the canyons*
- *Provide intensive management of motorized recreation use*
- *Expand and pursue partnerships with motorized recreation interests*

Table Mountain/Patton Canyon Sub-unit (#15) - The lands within the Table Mountain/Patton Canyon sub-unit, located about 5 miles northeast of Penrose, are completely surrounded by private and State Trust Lands. The State Trust Lands adjoining the western and northern sides of the sub-unit are leased by the Division of Wildlife and are open to the public only for hunting and wildlife viewing between the dates of September 1 and May 31, and travel is limited to foot and horseback only. The remaining State Trust Lands are closed to public access year round. All of the lands in the sub-unit have been identified for disposal.

The desired future condition for the Table Mountain/Patton Canyon sub-unit is to maintain wildlife habitat and preserve riparian values. Management objectives for this sub-unit include:

- *Maintain wildlife habitat and preserve the riparian values in the area*
- *Allow recreational opportunities that would maintain the remote backcountry setting*

Brush Hollow Sub-unit (#16) - The Brush Hollow sub-unit, located 2 miles northwest of Penrose, includes 280 acres of BLM lands that adjoin the Brush Hollow Reservoir State Wildlife Area.

The BLM lands in this sub-unit are completely surrounded by private and State Trust Lands. The 80 acre parcel that adjoins the State Wildlife Area is covered by a spiderweb network of user created roads and trails and has been heavily impacted by off-road vehicle activity. Existing uses include OHV play and target shooting. The western 200 acre parcel is separated from the 80 acre parcel by State Trust Lands, and is not legally accessible to the public. Both parcels have been identified for disposal.

The desired future condition for the Brush Hollow sub-unit is to maintain the area for appropriate multiple uses. Management objectives for this sub-unit include:

- *Maintain the area for appropriate multiple uses*

Blue Heron (#17) - The Blue Heron sub-unit contains about 275 acres of Public Lands along the Arkansas River, located about 2 miles east of Florence. The sub-unit is completely surrounded by private lands. Public access and travel opportunities are presently very limited due to natural terrain, private lands, and the ongoing development of a management plan for the area. The lands in this sub-unit were purchased with Land and Water Conservation Funds for the enhancement of recreation along the Arkansas River. The sub-unit is a haven for a variety of wildlife species, including waterfowl and migratory birds, due to the presence of the river and two ponds.

Public access to the sub-unit is currently limited to foot traffic. This may be expanded in the future with the development of the area.

The area lies within the Roaded Natural ROS zone. Future management of the area will involve both developed and dispersed forms of recreation with minimal motorized access. Current use includes birdwatching, hunting, and fishing. The sub-unit is being used for environmental education programs.

The desired future condition for the Blue Heron sub-unit is to enhance the area's wildlife habitat, while allowing appropriate recreation uses. Management objectives for this sub-unit include:

- *Provide appropriate recreational opportunities that are compatible with the special resources in the area*
- *Enhance wildlife habitat*
- *Protect riparian areas*
- *Continue reclamation of the former gravel pits and processing areas*

Deferred Analysis Sub-unit (#18) – The Deferred Analysis sub-unit consists of a large area of mostly private lands located in the northern portion of the planning area that is interspersed with several hundred small parcels of BLM lands.

Most of the BLM parcels in the sub-unit are surrounded by private lands and are not legally accessible to BLM personnel or to the general public. In most cases legal survey corners have not been established for the parcels and there is no way to readily determine the actual locations of property boundaries.

Due to the high number of scattered parcels, and because the parcels could not be accurately located or easily inspected, it was not possible to conduct a detailed inventory of the roads and trails utilizing GPS technology, as had been done for the rest of the Gold Belt travel management planning area. Instead, the road inventory for this sub-unit relied entirely upon outdated data that utilized older and less accurate mapping technologies.

Consequently, since neither the presence nor absence of existing roads could be confirmed by on-the-ground inspection, and whereas most of the land parcels are not legally accessible to the public, the decision was made to designate all existing roads on BLM lands contained within the Deferred Analysis sub-unit as Non-system roads; i.e., not available to the public for motorized use. State highways, county roads, or roads that are authorized by a BLM right-of-way are excluded. Any future travel route designations within this sub-unit will be analyzed on a case-by-case basis and in accordance with the regulations of the National Environmental Policy Act.

Phantom Canyon Corridor sub-unit (#19) - The Phantom Canyon Corridor sub-unit consists of the narrow strip of BLM lands in the planning area that lie immediately along the Phantom Canyon Road (Fremont County Road 67). The area lies about 15 miles

northeast of Canon City and immediately south of Victor.

The only motorized entry to the sub-unit is provided via the Phantom Canyon Road, a part of the Gold Belt Byway. The road follows Eightmile Creek along the historic railroad grade between the Arkansas Valley and the Cripple Creek mining district.

Use of the area is concentrated along the Phantom Canyon Road. Recreation uses include driving for pleasure, dispersed camping, picnicking, fishing, and hunting. Thousands of visitors drive this section of the Gold Belt Byway each year to enjoy its scenery.

The desired future condition for the Phantom Canyon sub-unit is to preserve the natural, scenic, and historic characteristics of the canyon, while allowing appropriate recreation uses. Management objectives for this sub-unit include:

- *Preserve the natural, scenic and historic characteristics of the canyon*
- *Maintain the undeveloped character of the lands surrounding Phantom Canyon*
- *Protect riparian areas*
- *Enhance wildlife habitat*
- *Provide intensive management of motorized recreation use*

Dakota Ridge Sub-unit (#20) - The Dakota Ridge sub-unit runs along a hogback that is completely surrounded by private lands except for a narrow strip that connects to the Garden Park sub-unit. The sub-unit is located 2 miles northeast of Canon City. The only legal public access to the area is provided via the connection with the Garden Park sub-unit. Travel is limited to cross-country foot use because of the rugged terrain. The existing roads in the area originate from private lands and include the WAPA power line road and several inactive quarry roads.

Dakota Ridge is located in the Rural and Roaded Natural ROS zones. All of lands in the sub-unit are identified for disposal.

The desired future condition for the Dakota Ridge sub-unit is to preserve the scenic values of this geological feature. Management objectives for this sub-unit include:

- *Maintain visual quality of the area*

Soda Springs Sub-unit (#21) - The Soda Springs sub-unit is completely surrounded by private lands with no legal public access. The sub-unit is located about 5 miles north of Penrose. The sub-unit is within the Roaded Natural and Semi-primitive Motorized ROS zones. All of the lands within the sub-unit are identified for disposal.

The desired future condition for the Soda Springs sub-unit is to maintain the area for multiple uses. Management objectives for this sub-unit include:

- *Maintain the area for multiple uses*

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plan: Royal Gorge Resource Management Plan

Date Approved: 05/13/96

Decision Number: 5-11, 5-18, 5-26, 5-29, 5-49, 5-54, 5-71, 5-72, 5-74, 5-79, 5-80, 5-83, 5-86, 5-87, 5-88, 5-89, 5-90, C-3, C-4, C-7, C-45, C-55, C-59, C-60, C-65, C-73, C-100, C-106, C-138, C-139, C-140, C-141, C-142, C-143, C-146, C-147, C-148, C-165

The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

Standards for Public Land Health: The Standards are addressed in the appropriate Affected Environment/Environmental Consequences sections.

RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS:

This TMP is an implementing action for the OHV designation decisions made in the Royal Gorge RMP. In addition, the guidance that came out of the Gold Belt Byway Plan was incorporated into this TMP. Coordination was completed with the Pike and San Isabel National Forests on consistency with their Forest Plan. Other statutes, regulations or plans were also identified and reviewed for consistency with this TMP, including: Standards for Public Land Health in Colorado; Recreation Management Guidelines to Meet Public Land Health Standards on Bureau of Land Management Lands in Colorado; Executive Order 11644 – Use of off-road vehicles on public lands; National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands; National Mountain Bicycling Strategic Action Plan; and Colorado BLM Travel Management Guidance.

ALTERNATIVES CONSIDERED BUT ELIMINATED:

Due to the many combinations of possible travel use designations that could be created from the large number of roads and trails in the planning area, numerous other alternatives could have been developed for this TMP. The three action alternatives, however, adequately address a range of alternatives, as required by NEPA. In addition, the alternatives brought forward in this EA cover a wide variety of options for many of the roads and trails, giving the decision maker the opportunity to select different motorized and non-motorized options for individual routes. No other specific alternatives were suggested by the public during the review periods.

AFFECTED ENVIRONMENT /ENVIRONMENTAL CONSEQUENCES /MITIGATION MEASURES

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: Air quality in the planning area is currently good to excellent. Ambient air quality standards are achieved throughout the planning area.

Environmental Consequences and Mitigation:

Current use Alternative: Current levels of use have not resulted in excessive generation of dust as a result of recreational use of public lands. No specific mitigations have been implemented or are contemplated as necessary.

Proposed Use Alternative: Under this alternative there would be an increase in routes permitted for ATV use from 9.1 miles to 16.2 miles. The increased amount of dust generated by ATVs is more than offset by the reduction in general category use from 94.6 miles to 59.2 miles. Mitigation specific to the increase in levels of use by ATVs should be unnecessary.

High Use Alternative: This alternative includes a substantial increase in the miles of trail accessible by ATVs, from 9.1 to 30.9. The general category is again decreased from what is currently available, 85.2 miles from 94.6 miles. The decrease in travel areas in the general category would make up for some of the increase in ATV areas. It is probable that specific mitigation would be unnecessary, as the use is scattered over a very large general area and occurs year around rather than at concentrated locations and times. In the event that air quality standards are exceeded, the only mitigation that might be effective would either be closure or limitation of use on some trails in an effort to reduce dust generation.

Low Use Alternative: The low use alternative would likely reduce the levels of use from what currently exists, increasing the quality of air in some areas. Because air quality standards are not currently exceeded, the result would not require specific mitigation but would be a benefit to the environment.

In general, the difference in levels of use between all of the alternatives is so slight that it would be impossible to assess the dust generated by use in any individual alternative. Specific mitigation for the levels of use anticipated is not warranted for any alternative.

Name of specialist: Mike Gaylord

CULTURAL RESOURCES

Affected Environment: The planning area contains cultural resources ranging from very early (Paleo-Indian) aboriginal sites to 50-year-old historic sites. Aboriginal site types include, but are not limited to, open camps, chipped stone manufacture and processing sites, open and sheltered architectural locales, and isolated artifacts and features. Sites in the planning area that date to the historic period comprise mines, vernacular and commercial architectural sites, railroad grades, homesteads, town sites, and ranches, as well as many other locations of past human activity. Roads and trails themselves are often of historic age and are occasionally eligible for the National Register of Historic Places.

Because of the magnitude and ongoing nature of the undertaking, BLM did not conduct intensive inventories on all roads and trails prior to this planning effort. Instead, a programmatic agreement (PA) between the BLM, the Colorado State Historic Preservation Officer, the Advisory Council On Historic Preservation, and the Comanche Tribe as a concurring party, was executed on June 3, 2003 (see [Appendix 5](#)). The agreement relieves BLM of the requirement to perform 100% inventory in the areas of potential effect. Instead, BLM archaeologists will make the decision where such intensive inventory is necessary based on information collected during literature reviews focused on the vicinity of the roads or trails in question, on topographic factors, on the knowledge of the staff, and on research questions formulated in the most current statewide historic context documents. Where BLM determines that intensive inventory is not necessary, reconnaissance inventories will be conducted and documented.

When determining the inventory order, BLM will place the greatest emphasis on the roads and trails for which the type of use is most likely to adversely affect historic properties. For example, if the use of a particular road in an area of known site concentration will greatly increase as a result of other roads nearby being closed, it will receive greater attention than a road or trail in a remote location, for which use is already limited and will not change.

Environmental Consequences & Mitigation:

Current Use Alternative: Historic properties, both historic and prehistoric in age, are impacted in many different ways depending on their proximity to existing travel routes. Unless site specific surveys were completed, the extent of the impacts would remain unknown. Under this alternative the closure of "User Created" routes would reduce potential impacts to some historic properties.

Mitigation: The stipulations resulting from the PA would apply.

Proposed Action: The impacts would be similar to the Current Use Alternative except that they would apply only to designated routes. Under the Proposed Action the potential impacts to recorded and undocumented historic properties would be decreased due to the lower number of routes and the closure of routes into sensitive areas.

Mitigation: The stipulations resulting from the PA would apply.

Low Use Alternative: The potential impacts would be considerably fewer than the Proposed Action due to the smaller number of designated routes.

Mitigation: The stipulations resulting from the PA would apply, and fewer intensive inventories would probably be required.

High Use Alternative: The potential impacts would be considerably higher than the Proposed Action due to the greater number of designated routes.

Mitigation: The stipulations resulting from the PA would apply, and more intensive inventories would probably be required.

Name of specialist: Monica Weimer

ENVIRONMENTAL JUSTICE

Affected Environment: There are no minorities or low-income populations in or near the project area.

Environmental Consequences & Mitigation: The Proposed Action and alternatives will not have a disproportionately high and adverse human health or environmental effect on minorities or low-income populations.

Name of specialist: Pete Zwaneveld

FLOODPLAINS, WETLANDS, & RIPARIAN ZONES (includes information related to Standard 2)

Affected Environment: The planning area encompasses many watersheds tributary to the Arkansas River, most with significant wetland resources. Fourmile, Eightmile, Beaver, and Current Creeks are the larger, well-known and most affected streams. Some of the streams located in the extreme northern portion of the planning area flow northward into the South Platte watershed but are unaffected by any decisions made in this plan.

The streams within the Gold Belt planning area support differing riparian and wetland plant communities because of variations in elevation, aspect, geology and soils. Examples include plains cottonwood communities at lower elevations, riparian evergreen/willow communities at mid-level elevations, and shrub willow/herbaceous wetland communities at higher elevations. Vegetation communities also reflect differences in the local water balance, ranging from those with permanent saturated water tables around perennial aquatic environments to flash runoff/intermittent drainage environments. These wetland resources are critically related to other resource values including water supply and quality, wildlife habitat, livestock water and forage, flood protection, etc, and are mandated to receive protection within the BLM.

The Gold Belt Travel Management Planning Area includes about 564,600 acres total land area, of which 138,600 acres are Public Lands. Within the total planning area, 25,128 acres are

classified riparian, of which 3,362 acres are Public Lands. A statistical summary of the riparian resources and existing travel routes is shown in Table 3.

The acreage and mileage figures included in Table 3 are likely slightly elevated because open water and margins of some wet meadows and irrigated areas, including tail-waters, are photo-interpreted as wetlands. There are approximately 2,094 miles of streams in the planning on non-Public Lands and another 679 miles on Public Lands. The higher amount of streams occurring on non-Public Lands is attributed to the fact that most of the wet, productive areas were homesteaded. The mileage figures include the routes occurring along the larger, well known streams such as Fourmile Creek but also include first order tributary streams if they support wetland vegetation, the latter being more common on the Public Lands.

The total mileages of motorized routes that fall within 100 feet of riparian areas for both non-Public and Public Lands equals 565.4 and 97.2 miles, respectively. Of these miles, 106.0, and 13.5 miles of routes go directly through non-Public Land and Public Land wetland areas, (i.e., wetland supported vegetation on both sides of a travel route). There are motorized routes in 27.3% of the riparian areas/riparian influence zones on non-Public Lands in the planning area, and in 14.3% of riparian areas/riparian influence zones on Public Land.

The foregoing presentation is only for motorized routes. Non-motorized routes are few in number. Few property owners maintain hiking/horse routes, and single-track trails are uncommon on the Public Lands throughout the planning area.

It should be noted that non-Public Land inventories under-represent actual motorized mileages, probably substantially, because they are derived from aerial photography instead of from ground inventory methods and do not incorporate information equal to the inventory on public lands. Also, most of the important wetland areas that occur along the bigger streams have motorized roads. In many private land areas the floodplain is large enough that roads often fall just outside of the 100 foot buffer used in the analysis, and that was considered to be the minimum distance that roads directly affect stream/riparian function. Consequently, most of the wetland areas located on private lands have been highly modified.

Table 3 - Riparian/Wetlands - Existing Situation

Classification	Acres*	Miles*	Percent*
Total acres, non-Public Land riparian/wetlands	25,128		
Total acres, Public Land riparian/wetlands	3,362		
Miles of riparian/wetlands (miles of streams), non-Public Lands		2,094	
Miles of riparian/wetland (miles of streams), Public Lands		679	
Miles of motorized routes, non-Public Land within riparian areas		106	
Miles of motorized routes, Public Land within riparian areas		13.5	
Miles of motorized routes, non-Public Land, in riparian influence zone **		459.4	
Miles of motorized routes, Public Land, in riparian influence zone **		73.7	
Percentage of motorized routes, non-Public Land, in riparian areas and riparian influence zones			27.3
Percentage of motorized routes, Public Land, in riparian areas and riparian influence zones			14.3
Miles of non-motorized routes, non-Public Land, in riparian influence zone***		6.1	
Miles of non-motorized routes, Public Land, in riparian influence zone ***		15.1	

* Using developed GIS data layers, some rounding included

** Riparian influence zone = from edge of riparian area out 100 feet

*** Incomplete data due to inventory technique but also thought to be very low.

It is important to point out that some sub-units in the planning area show little or no variation between the alternatives in route type, density, etc., or the sub-units have no true riparian or wetlands within them. Planning decisions, with respect to riparian management, are the same for these sub-units. In the Penrose Commons sub-unit there are pockets of cottonwood, but no true riparian wetland areas. Thus, the Penrose Commons sub-unit has no wetlands affected by any differences between the alternatives. In addition, Beaver Creek, Dakota Ridge, Gribble Mountain, Brush Hollow, Soda Springs, Twin Mountain and Table Mountain/Patton Canyon sub-units either have no proposed travel route decisions that differ from the Current Use Alternative or have no riparian involved. It is also important to note that no changes are proposed under any of the alternatives to several major routes in some of the most important and sensitive BLM riparian areas, such as Phantom Canyon, where the county road greatly affects Eightmile Creek. Fourmile Creek, Cripple Creek, and pockets of riparian in many head-water streams along other major county roads, such as the High Park Road, are other examples where major infrastructure dictates no flexibility to change travel management direction. Therefore, most of the mileage differences affecting riparian and wetland resources come from changes between alternatives in the Gulches, Booger Red Hill, Shelf Road, Bare Hills, and Little Mack

Gulch sub-units.

Environmental Consequences & Mitigation: BLM management decisions and policies are strongly influenced by riparian-wetland functions. Therefore, it is important to understand the historical impacts to riparian and wetland areas in addition to travel related issues, because riparian health is affected by many actions. Historical reference (Campbell, 1972) demonstrates that the various drainages within the planning area were modified by human activities by the late 1880s, and much of the planning area shows a high amount of previous and current disturbance. A detailed discussion of the historical impacts to riparian and wetland resources is located in [Appendix 6](#).

A road or route is a continuous, unnatural topographic feature on the landscape that captures and transports water at rates different from what would occur if it were not there. Over-land flow interception, changed infiltration rates due to compaction, and the ensuing creation of a route for water transport, all change runoff. This change can be site specific to individual roads, as well as larger scale changes to water delivery, the timing of runoff, and magnitude to down gradient areas.

Impacts from roads can be reduced or mitigated by proper placement of numerous culverts or using techniques such as out sloping, water bars, road placement, etc. Techniques to disconnect the road from natural water flow paths should be designed during route construction to minimize road-water interaction but were rarely considered historically or are inadequate. Dirt routes that are traveled when wet are a severe problem to land management agencies. When considering runoff, the severity of impacts caused by travel and the effectiveness of drainage control structures is further affected by season of use, type of use, and amount of use, etc. For example a melting snow pack might soak into a road somewhat but tracks through the snow serve as additional conduits for water delivery and sediment.

For this planning effort, the riparian/wetland impact analysis was performed on two levels or scales of analysis; the watershed scale and individual route scale. In addition to the recognized general affects that roads have on streams and wetlands, the riparian analysis also considered the Trends and Assumptions presented previously to account for different levels of impacts associated with different types of roads and trails, different types of travel uses, and different levels of traffic.

For the sake of brevity and clarity, the following Environmental Consequences and Mitigation section follows a different format than what has been used for many of the other affected resources. Instead of separately describing the environmental consequences and mitigations for each alternative, the discussion has been narrowed to address the changes (miles of routes affecting riparian/wetland resources) that result from each alternative when compared to the existing situation (Current Use Alternative). Table 4 represents a comparison of the alternatives in term of how the miles of routes affecting riparian/wetlands changes with respect to the current situation.

Table 4 shows reductions from the existing situation for all three alternatives. The reductions of miles of motorized routes result in an increase of non-motorized routes, as most routes within

riparian areas are converted to non-motorized or mechanized type trails. Evaluating impacts at different widths is done here for additional comparison to place relevance on the type of transportation impact as being either a direct or indirect impact. The actual magnitude of impact at any distance from a stream is very site specific and dependent on a large host of variables, such as gradient, soil, use level, noise, vegetation cover, and many more.

Table 4 - Comparison of change from Current Use for miles of routes affecting riparian

	Low Use	Prop. Action	High Use
Motorized			
% change - miles in riparian areas	-11.5%	-11.2%	-8.2%
% change - miles in riparian influence zones*	-14.4%	-14.5%	-8.7%
Non Motorized **			
% change - miles in riparian areas	+16.8%	+18.9%	+21.5%
% change - miles in riparian influence zones	+49%	+58%	+46.6%

* Riparian influence zone = from edge of riparian area out 100 feet

** Percentage change appears high because of very low mileages.

As the above mileage reductions for all three alternatives indicate, the overriding benefit to implementing a designated route travel management system is that it effectively reverses the trend in increased route proliferation, route spread, and keeps new user created routes from developing. Route designation occurs under all three action alternatives and helps riparian areas move towards meeting Public Land Health Standards by at least holding the status quo. Constituents within and outside BLM who are concerned about riparian/wetland protection favor route designation as a key process to holding riparian resource condition at “steady state”, and for moving towards the more advanced stages of plant community development and improving stream conditions.

That stated, it is a rare situation where roads in riparian or anywhere in the watershed improve riparian resource conditions or their ability to function unless the route is used to correct another resource problem of greater magnitude. Generally speaking, most roads and trails serve social not resource functions. Less routes, less use on the routes, less wet weather use, less compacting use, all combined with increased maintenance and patrol would best protect riparian/wetland resources and help move resource conditions in the direction that BLM policy states. Often the least damaged riparian habitats occur in areas of “high core area value” (see wildlife section). Keeping roads and trails to a minimum is most beneficial, allowing more and more riparian areas to move towards meeting Public Land Health Standards.

Of the three action alternatives, the Low Use Alternative and the Proposed Action would do the best jobs of minimizing riparian impacts. Of the planning area sub-units discussed as having the most issues related to wetland protection, limiting motorized routes into the Gulches, Booger Red Hill, Shelf Road, Bare Hills, and Little Mack Gulch best protects a large number of important headwater tributaries directly but also keeps the water cycle intact and protects seep

and spring sources in distant locations. Currently, gulches like Espinosa, Sand, Trail, South Cedar, Cedar, and Long are in good condition relative to transportation impacts. These gulches lie in settings that are extremely sensitive to wet weather travel. In addition, the remote nature of these gulches and surrounding lands make it difficult for BLM to patrol. The Low Use Alternative and the Proposed Action have less potential impact on riparian resources than the High Use and Current Use alternatives that provide for higher levels of motorized use.

Along High Park Road, certain routes proposed for closure would directly stop travel in riparian areas. These closures are on small tracts of public land in an area getting extreme development (subdivision) pressure. Selection of an alternative that favors closures in riparian areas would be valuable for resource protection.

The Low Use Alternative best protects the riparian resources in Little Mack Gulch and Booger Red sub-units and is recommended. For most other sub-units, the need for riparian resource protection in response to direct impacts is not an overriding issue. High road densities in surrounding areas, however, do indirectly impact offsite riparian resources, as discussed in the aquatic and other sections of this report.

The High Use and Current Use Alternatives are not desired because of their impacts to riparian/wetland resources, especially in the Gulches sub-unit.

Mitigation: Common to All Alternatives

1. Make effective use of temporary wet weather and seasonal closures. During this period, slow snowmelt keeps many areas saturated. Many of the problems created in the watershed result from a small number of OHVs using routes during wet periods. In addition, publicize the need and explain the rationale for voluntary limited use at any time throughout the year when a substantial wet period exists. Wet period road closure is one of most effective tools available to protect resources; second only to proper design and maintenance.
2. Incorporate the designated routes into the maintenance plan in accordance with the final decision.
3. Utilize the standard travel uses signing program developed by the Natural Resources Working Group. Institute an aggressive sign maintenance program. Utilize volunteers to assist in sign maintenance.
4. Enforcement of the designated uses of routes is essential.

Name of specialist: David Gilbert

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The Public Lands in the project area have been inventoried for noxious weeds. Noxious weeds are more common on the private lands in the project area than they are

on the Public Land. The ecological sites in the northern part of the project area are generally at higher elevation and are susceptible to invasion by yellow toadflax if severe soil surface disturbance occurs. The ecological sites in the southern part of the project area are generally at lower elevation and are susceptible to invasion by knapweed species if severe soil surface disturbance occurs.

The risk of noxious weed invasion increases with greater quantities of roads and trails and larger numbers of users. Weed seeds that become attached to and are carried by people, animals, motor vehicles, and construction equipment is a major factor in the spread of weeds. Of particular concern is seed imbedded in mud carried on vehicles and equipment, and weed seed contained in hay for feeding horses. Since the amount of recreational use of the Public Lands is expected to increase in the future, mitigations for the spread of weeds will be needed under all of the alternatives. Consequently, the risk of weed spread and the degree to which mitigations may be needed to prevent and control the spread of weeds is relative to the number miles of designated travel routes and the amounts and kinds of use that occurs on them.

Weed treatment alongside county, state and federal highways is the responsibility of the respective transportation agency. BLM is responsible for the treatment of weeds on Public Land, except where the BLM is crossed by county, state and federal routes.

Environmental Consequences:

Current Use Alternative: No weeds are being treated on public lands within the project area at this time. Over time, however, increased levels of use of roads and trails are likely to result in the spread of weeds and higher control costs. Weed issues could arise under this alternative if “user created roads” are not controlled or if the number of users on the existing roads and trails increases substantially. Because of the relatively high mileage of motorized routes available to the public under the Current Use Alternative (104 miles), the potential for the spread of weed seeds by motor vehicles is very high, compared to the Proposed Action and Low Use Alternatives.

Proposed Action: The Proposed Action would decrease the total mileage of designated motorized routes that are available to the public under the Current Use Alternative from 104 miles to 75 miles. Thus, the potential for weed spread is somewhat reduced under this option. The new construction of ATV and bike trails in this alternative will tend to increase the probability of new infestations.

High Use Alternative: This alternative provides 120 miles of designated motorized routes that are available for public use and has the highest level of use both in terms of numbers of potential users and miles of roads and trails and new construction. Therefore, this alternative has the highest potential for spreading weeds.

Low Use Alternative: This alternative provides only 37 miles of designated motorized routes for public use and has the lowest level of use both in terms of number of visitors and total length of roads and trails. Therefore, it is the least likely to increase the probability of new weed infestations. This alternative is the best alternative from the

standpoint of reducing the impact from noxious weeds, because the risk of noxious weed invasion is substantially reduced from the current situation.

Mitigation: Applicable to All Action Alternatives

1. Periodic inspections of travel routes for new weed infestations
2. Treatment of new weed infestations
3. Use of weed free construction and maintenance equipment (removal of mud from tires, tracks, etc.)
4. Use of weed free seed and mulch for reclamation work
5. Public education to promote cleaning recreational vehicles before riding on Public Lands; use of weed free horse feed

Name of specialist: Tom Grette

NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: A traditional cultural property is defined as:

“....one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in the community’s history, and (b) are important in maintaining the continuing cultural identity of the community” (NRB 38:1).

In Colorado, three types of culturally significant phenomena are present. McBride (1999) identifies traditional cultural properties (TCPs) as locations where wild foods or medicines are gathered, or are landforms associated with aboriginal traditions or beliefs. She also notes that locations with “intangible spiritual attributes” (ISAs) and contemporary use areas (CUAs) are known in Colorado.

Unless specifically identified by Native Americans, many TCPs, ISAs and CUAs are extremely difficult or impossible for a field archaeologist to recognize. Such sites, often considered sacred, include mountain tops, waterfalls, river and trail confluences, the headwaters of streams, ecotones (including the entire Front Range), clay sources, “origin places”, anthropomorphic and zoomorphic rock formations and springs. More readily identifiable are rock art, sweat baths, battle sites, sun dance arbors, vision quest sites, and medicine wheels (McBride 1999: 342-345).

In compliance with regulations interpreting the National Historic Preservation Act of 1966, amended 1992, specifically 36 CFR 800.2(c)(3)(i)-(vi), BLM consulted Indian tribes that might have an interest in the planning area, including the following: Apache Tribe of Oklahoma, Cheyenne and Arapaho Tribes of Oklahoma, Cheyenne River Lakota Tribe, Comanche Tribe of Oklahoma, Crow Creek Lakota Tribe, Kiowa Tribe of Oklahoma, Northern Arapaho Tribe, Northern Cheyenne Tribe, Northern Ute Tribe, Oglala Lakota Tribe, Pawnee Nation of Oklahoma, Rosebud Sioux Tribe, Shoshone Tribe, Southern Ute Tribe, Standing Rock Lakota Tribe, Ute Mountain Ute Tribe.

As a concurring party to BLM's Programmatic Agreement (PA) (see above, "Cultural Resources" section; also [Appendix 5](#)), the Comanche Tribe expressed an interest in being regularly consulted during the determination of effect process during maintenance activities. In addition, the tribe will assist the BLM in determining appropriate mitigation and treatment procedures for adversely affected historic properties [see [Appendix 5](#), Section V (B) and (C)].

Environmental Consequences & Mitigation:

Current Use Alternative: Sites of Native American Religious Concern are impacted in many different ways depending on their proximity to existing travel routes. Until site specific surveys are completed, the extent of these impacts would remain unknown. Under this alternative the closure of "User Created" routes would reduce potential impacts to some sites.

Mitigation: The stipulations resulting from the PA would apply.

Proposed Action: The impacts would be similar to the Current Use Alternative except that it would only apply to designated routes. Under the Proposed Action the potential impacts to sites of Native American Religious Concern would be decreased due to the lesser number of routes and the closure of routes into sensitive areas.

Mitigation: The stipulations resulting from the PA would apply.

Low Use Alternative: The potential impacts would be considerably fewer than the Proposed Action due to the smaller number of designated routes.

Mitigation: The stipulations resulting from the PA would apply, and fewer intensive inventories would probably be required.

High Use Alternative: The potential impacts would be considerably more numerous than the Proposed Action due to the greater number of designated routes.

Mitigation: The stipulations resulting from the PA would apply, and more intensive inventories would probably be required.

Name of specialist: Monica Weimer

PRIME AND UNIQUE FARMLANDS

Affected Environment: There are no prime or unique farmlands involved on BLM lands in the planning area.

Environmental Consequences & Mitigation: There are no impacts to prime or unique farmlands and no mitigation is necessary in any of the alternatives.

Name of specialist: Tom Grette

SOILS

Affected Environment: The Gold Belt planning area covers a large area and contains many different soil types. BLM uses soil surveys from the Natural Resources Conservation Service for purposes of analysis. These surveys are complete for Fremont, El Paso and Pueblo Counties and are available in a digital format that allows users to analyze data using GIS technologies. The soil surveys for Park and Teller Counties have not been published but the information is available in digital format.

Travel routes in the Gold Belt planning area within Fremont County alone cross 85 different soil types, with 74 being classified as having a high erosion hazard. In general, the lower areas of the Gold Belt planning area have shallow soils derived from sedimentary rock parent material, while the higher areas have shallow soils with a granitic parent material. Most of these soils are low in nutrients, have a low water holding capacity, and are slow to revegetate after disturbance.

The Colorado BLM is directed to address the Standards for Public Land Health. Standard number one is directed at upland soils and states that “Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.” The Standards for Public Land Health are discussed in greater detail in [Appendix 7](#).

At this time, most of the soils in the Gold Belt planning area are meeting standards. In some areas soils are not meeting standards due to the encroachment of pinyon/juniper forests out competing and eliminating herbaceous vegetation, resulting in less ground cover. The presence of traveled roads contributes to not meeting land health standards for soils.

Environmental Consequences

Effects Common to All Alternatives: Roads and trails have many negative impacts and no benefits to soils in an area. All alternatives in this plan would have negative impacts to the soil resource in varying degrees depending on the miles of roads and trails left open. Factors such as slope, precipitation, vegetative cover, presence of cryptogamic cover, soil type, and water runoff all affect the amount of erosion. Erosion is then accelerated with manmade disturbances such as roads and trails. Most of the effects of routes on soils can be attributed to soil compaction resulting in impacts to water quality and hydrologic functions. As soil is subjected to pressure, the soil particles are pressed together into a denser mass, as air and gasses are pushed out of the soil. This compaction creates a soil that is less permeable to water and air infiltration and ultimately affects the soils ability to nourish plant roots and soil microbes. Soil compaction is exacerbated when soils are wet. Soil compaction also increases the amount of runoff that flows off the road into surrounding drainages, causing gullies and increased erosion.

In addition to compaction, over time the shallow soils in the Gold Belt region tend to erode down to larger materials. This results in routes spreading over larger areas as users

seek smoother surfaces. This leads to increased impacts, as new soil is disturbed and larger materials get broken down by the mechanical action of feet, hooves, or wheels. The reader is also directed to the Water Quality and Hydrology section for further discussion of impacts related to soils impacts.

Current Use Alternative: Under this alternative a total 136 miles of roads and trails on Public Lands would be available for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 104 miles would be available for motorized uses and 32 miles for non-motorized and mechanized uses. Compared to the Proposed Action and Low Use Alternative, estimated annual soil loss from travel routes would be high and would require extensive mitigation to control erosion. (See mitigation under Water Quality/Hydrology)

Proposed Action: Under this alternative a total of 157 miles of roads and trails would be designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 75 miles would be designated for motorized uses and 82 miles for non-motorized and mechanized uses. The estimated annual soil loss from travel routes would be moderate and would require mitigation to control erosion. (See mitigation under Water Quality/Hydrology)

Low Use Alternative: Under this alternative a total of 85 miles of roads and trails would be designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 37 miles would be designated for motorized uses and 48 miles for non-motorized and mechanized uses. Compared to the other alternatives, the estimated annual soil loss from travel routes would be relatively low and would require the least mitigation to control erosion. (See mitigation under Water Quality/Hydrology)

High Use Alternative: Under this alternative a total of 190 miles of roads and trails would be designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 120 miles would be designated for motorized uses and 70 miles for non-motorized and mechanized uses. The estimated annual soil loss from travel routes would be very high and would require extensive mitigation measures to control erosion. (See mitigation under Water Quality/Hydrology)

Comparison of Alternatives: Due to the size of the planning area and lack of suitable data, it was not possible to estimate total annual soil loss from roads and trails for the overall area. Instead, soil loss was estimated in the Seep Springs sub-unit, where suitable data existed and the size of the area was manageable. Using this data, soil erosion was estimated using the Revised Universal Soil Loss Equation (RUSLE). RUSLE predicts the average annual soil loss over a long period of time. Most of the soil loss in the Gold Belt planning area is from infrequent, large events where there could be several years of little or no soil loss and then one storm that produces four times the annual average.

These estimates demonstrate the amount of soil in tons per year that is being lost from roads on BLM lands under the current management in this area, and show the amount of soil erosion that can be expected under each of the alternatives. The trends seen in the Seeps Springs Draw area

can be expected to be similar throughout many other sub-units in the planning area. Table 5 shows the results of this analysis. **The reader should keep in mind that Seeps Springs Draw would be managed with a motorized emphasis in the Proposed Action, and that the erosion rates under this alternative would tend to be higher than in some other areas.**

Table 5: Average Annual Soil Loss from the Seeps Springs Draw area

Alternative	Current Use	Proposed Action	Low Use	High Use
Soil Loss (tons/year)	64	25	10	29

Name of specialist: John Smeins

THREATENED AND ENDANGERED SPECIES (includes information related to Standard 4)

Affected Environment: This EA analyzes the effects of implementing the Gold Belt Travel Management Plan on threatened, endangered, proposed, candidate, and sensitive species. Species addressed in this EA are those that were identified by US Fish and Wildlife Service via correspondence dated 1/30/2003 ([Appendix 8](#)). While sensitive species are not Federally protected, it is BLM policy to manage these species to prevent future listing, thereby affording them the same level of protection as Threatened and Endangered (T&E) species in BLM programs. Only those species that may be affected by the implementation of the TMP will be addressed in this section. Federally listed or candidate species not addressed include: Canada lynx, whooping crane, pallid sturgeon, least tern, piping plover, Uncompahgre fritillary butterfly, Penland alpine fen mustard, greenback cutthroat trout, boreal toad and Arkansas darter. The species not addressed in this document either do not occur on BLM lands or are outside the Gold Belt TMP boundaries. Those species (Threatened, Endangered, Candidate and BLM Sensitive) that occur in the TMP area and may be affected by travel management activities are listed in Table 6.

Analysis of impacts from the four alternatives will be described for each of the species listed in Table 6. Descriptions of the species and their occurrences in the Gold Belt Planning Area are included in [Appendix 9](#). Due to the sensitive nature of the information pertaining to the known locations of T&E species and because some of the sources of such locations are not intended for public distribution, maps of T&E habitat sites cannot be provided.

Table 6 Threatened, Endangered & Sensitive Species

Species	Status	Critical Habitat
Mexican spotted owl	Threatened	Yes
bald eagle	Threatened	No
mountain plover	Sensitive	NA
black-tailed prairie dog	Candidate	NA
Gunnison's prairie dog	Sensitive	NA
peregrine falcon	Sensitive	NA
Brandegees wild buckwheat	Sensitive	NA
dwarf milkweed	Sensitive	NA
golden blazing star	Sensitive	NA

Colorado Natural Heritage Program (CNHP) Element Occurrences: Discussion of the CNHP Element Occurrence records is also considered in the analysis. CNHP has Element Occurrence data for the birds, animals, and plant species occurring in the Gold Belt planning area at a level of precision that will allow for the analysis of route impacts. Several of these species are identified above and are included in the analysis of the alternatives. Others are not considered BLM sensitive species and will not be described in further detail. Detailed descriptions of plant associations are not included in this document. All element occurrence records have been mapped and impacts to all element occurrences will be evaluated in the Environmental Consequences section of the EA. The species names and definitions of CNHP rankings are located in [Appendix 10](#).

Environmental Consequences and Mitigation:

Introduction: T&E and Sensitive species impacts pertaining to Gold Belt TMP alternatives were analyzed according to the BLM Royal Gorge RMP, the Standards for Public Land Health in Colorado, and BLM recreation guidelines as they relate to the maintenance of healthy plant and animals communities. The Standards describe natural resource conditions that are needed to sustain public land health and underscore decision-making and evaluation of all multiple uses of the public lands, including recreational travel. The Standards pertinent to impact assessment of Gold Belt TMP alternatives on wildlife include those related to riparian systems, plant and animal communities; and sensitive, threatened, and endangered species. Standard 4 provides direction for Royal Gorge Field Office to manage T&E and sensitive species and maintain and enhance populations on both a local and landscape level, and reads:

"Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities. Indicators: All the indicators associated with the plant and animal communities standard apply. There are stable and increasing populations of endemic and protected species in suitable habitat. Suitable habitat is available for recovery of endemic and protected species."

The reader is directed to read the impact analysis described in the Wildlife, Terrestrial section as

much of that discussion applies to T&E species as well. The discussion of habitat fragmentation and maintenance of movement corridors and providing habitat connectivity are important to T&E species (see Wildlife, Terrestrial section).

Landscape-level Trends: Population growth experienced over the last 20 years, along with the increasing extent of private land subdivision and residential development in Fremont, Park, and Teller Counties have dramatically altered the state of remaining wildlife habitat in the Gold Belt TMP area. The planning area is dissected by a matrix of Public Lands and private lands, the latter formally working ranches. Historically, private ranches provided a level of core, low-traffic wildlife habitat.

In recent years, many of these ranches have been sold to developers and converted to subdivisions that include roads, home sites and other support facilities. As homes are built and people move into former open space, wildlife are being displaced and forced to move from traditional ranges. As a result, Public Lands are an increasingly critical source of land for providing core, undisturbed habitat for all species (including T&E and sensitive species), as well as the connectivity of habitats that is so important to many wildlife species. Appendix 11, [Table 1](#) details the level of importance of Public Lands in maintaining core wildlife habitat and large blocks of contiguous open space on the landscape in the planning area.

Currently, within the Gold Belt planning area approximately 40 % of the landscape across the entire planning area is considered core habitat, unaffected by roads, trails, and human traffic. Conversely, approximately 60 % of all lands within the planning area are impacted by routes and traffic. In contrast, under this same measurement, less than 30 % of Public Lands are impacted by routes, trails and human traffic leaving more than 70 % of the Public Lands managed by BLM within the planning area as core habitat.

Furthermore, the only large blocks of core habitat areas (greater than 5,000 acres) left in the planning area are those that occur on Public Lands such as the Beaver Creek WSA, Cooper Mountain, Gribble Mountain, and the Upper Fourmile area near Booger Red Hill. In compliance with Public Lands Health Standard 4, BLM managers seek to ensure that these areas remain viable as suitable habitat.

T&E and Sensitive Species Impact Analysis: The Royal Gorge Field Office analyzed T&E and sensitive species impacts under four travel scenarios, as developed by the Interdisciplinary Team and in response to public input. BLM route inventory data was derived from GPS mapping and digital orthophotoquad interpretation, and was modeled for traffic-impacts using GIS tools. It was then comparatively assessed in terms of core-undisturbed and traffic-impacted habitat in relation to BLM, DOW, and CNHP wildlife habitat datasets. Analytical products included map overlays and statistical information produced to depict relative habitat fragmentation, traffic-impact areas, and remaining wildlife core areas both within the planning area and among 6th level watersheds.

All routes within the TMP area were initially examined and characterized as to type, width, type of use, and to the current use level. These parameters defined a generalized current impact assessment of a route to individuals, populations, and habitat for a particular species or group of

species.

Similarly, within the GIS database, habitat impact results could be viewed and assessed across scale such as between watersheds or across the whole landscape. Routes were ranked from high to low impact based on the aforementioned attributes and buffered by four distances to determine areas of habitat that are being impacted from the effective habitat base. The traffic-buffer classes used in this assessment were:

- 165 ft (50 meters) Low impact routes that receive low use, i.e., trails
- 330 ft (100 meters) Moderate impact routes, moderate use, trails and unimproved roads
- 820 ft (250 meters) Moderate motorized use, unimproved routes, high use trails
- 1,335 ft (407 meters) Major improved routes with high use, high use motorized routes

For instance, a foot trail that receives low use was buffered by 165' (50 meters) on both sides of the route. Similarly, county roads that receive high use were buffered by 1,335' (407 meters or ¼ mile). These analyses were done for all four alternatives. These buffers were developed for local use and conditions, referencing previous research. Future traffic and type of use, and thus route wildlife impact, were projected from route designation per travel alternative and traffic-counter data, as collected by the Royal Gorge Field Office (See Recreation section).

Areas of T&E species habitat inside or outside of these traffic-weighted route buffers were considered to be either impacted by the route network or core wildlife habitat, respectively. These routes are depicted in Appendix 11, Maps [9](#), [10](#), [11](#), and [12](#) for each alternative, and show where effective core habitat remains intact. Appendix 11, [Table 1](#) shows a comparison between alternatives and core habitats. When analyzing the data on a landscape level (Gold Belt planning area) it becomes obvious that differences between the four alternatives are small. This is due to the scale of observation, the relative state of road density in the planning area, and the relatively minor mileage statistics impacted by BLM travel decisions. Linear mileage of roads and trails in the planning area exceed 8,000 while BLM decisions impact less than 300 miles.

Similarly, at the ecosystem and landscape scale, large areas of habitat that are currently undisturbed will remain undisturbed by roads and trails in the Beaver Creek WSA, the Phantom Canyon ACEC and other extremely rough sub-units such as Cooper Mountain, Gribble Mountain and Mt. Pisgah/Little Pisgah, no matter which alternative is selected. Thus, all alternatives result in several core areas that are greater than 1,000 acres and mean core area sizes greater than 15,600 acres.

The T&E species impact analysis compared the four alternatives, the habitat types and core areas. Appendix 11, [Table 2](#) shows the percentages of each habitat type that remain in core habitat (based on the total acres of that habitat type in the planning area). Appendix 11, [Table 3](#) shows the percentage of BLM habitat that is impacted by routes. As expected, pinyon-juniper habitat is the most affected (31 %) because it is the habitat type that is most commonly found on the Public Lands in this area. Again, however, subtle differences are noted between alternatives when examining this data on a landscape level.

Despite the large size of the Gold Belt planning area, only a small number of T&E and sensitive

species are involved. The assumption has been made that protection of core habitats will provide for all the species that occupy those habitats. Protection of core areas is expected to confer benefits on the greatest number of species and includes species that have the greatest need for contiguous habitats and effective corridors.

Data for individual species is found in Appendix 11, Tables [5-1](#), [5-2](#), [5-3](#), and [5-4](#). These tables show the amount of acres of core BLM habitat for each species, the acres of traffic impacted habitat, and the percentage of traffic impacted habitat. Data for Element Occurrence Records are found in Appendix 11, [Table 6-1](#).

Effects Common To All Alternatives: Some species (mountain plover, black-tailed prairie dog, and peregrine falcon) included in the analysis are not affected by any of the alternatives and are not further analyzed. The following paragraphs detail the rationales for not analyzing these species.

Mountain plovers are rare in the planning area. There is very little habitat suitable for mountain plovers in the Gold Belt TMP area. The extreme southern portion of the planning area in the vicinity of Florence, Penrose and Canon City contain some areas of blue grama shortgrass prairie. These habitats are small in size and do not occur on Public Lands. There are no documented mountain plover sightings for the TMP area. There are no routes designated or planned in any alternative that occur in mountain plover habitat, therefore there will be no impacts to mountain plover.

Black-tailed prairie dogs are found in eastern Fremont County in suitable habitats. Suitable habitat consists of flat, shortgrass prairies. There are no prairie dog colonies on Public Lands in Fremont County and, therefore, black-tailed prairie dogs would not be affected by decisions made in the TMP.

Peregrine falcons occupy habitats that are generally inaccessible by the public, and no alternatives will result in habitat changes that would directly impact this species. Within the Gold Belt TMP area, there are three active peregrine falcon eyries: Little Turkey Creek, Upper Beaver Creek and Lower Beaver Creek. All the eyries are located within the Beaver Creek WSA. None of the eyries are accessible by road or trail and there are no travel management decisions that are being made that will impact peregrine falcons.

Most of the TMP area is meeting the Standard for Public Land Health for Threatened and Endangered Species. A few isolated areas are not meeting this Standard, due primarily to the proliferation of travel routes and the increases in use on those routes. All of the alternatives would either meet or make slight improvements to the situation with this Standard. The overall change would be minimal within the entire TMP area under any of the alternatives.

Current Use Alternative: This alternative represents the “no action” alternative. Under this alternative use is limited to existing routes that are available for use unless posted closed. This alternative does not address the increased use on the planning area’s routes. BLM has made the assumption that traffic levels on roads and trails on Public Lands will

increase as more people recreate on Public Lands. Under this alternative use will increase, conflicts will increase, damage to Public Land resources will increase, and wildlife will become more dependent on Public Lands for habitat.

Implementation of the Current Use Alternative may have an adverse effect on Mexican spotted owls in the future. All currently occupied sites are inaccessible due to extreme topography or because of private land access limitations. These limitations will not change in this alternative. Increased travel across Public Lands, however, may impact spotted owl habitat that is outside of nesting territories. While there are no existing routes in nest habitat or habitat that contains the constituent elements, the increased use that is possible under this alternative may result in routes that occur in sensitive owl habitat in the future. Appendix 11, Tables [5-1](#) and [5-2](#) shows the effects of this alternative on Mexican spotted owls. Figures in the table are based on current use only and do not depict what may happen as the use of roads and trails increases in the future.

Bald eagles may be impacted by increased and uncontrolled use of roads and trails in the Current Use Alternative. Only one known nest site is located within the area and it is found on private land along Fourmile Creek north of Canon City. Eagles are likely to forage on Public Lands within the vicinity of the nest site. Under this alternative a number routes in the Dinosaur Flats and Oil Well Flats areas will remain open to motorized use and may impact foraging eagles. Wintering bald eagles are found along the Arkansas River in the vicinity of the Blue Heron sub-unit east of Florence. There will be no impacts to bald eagles at the Blue Heron site in this alternative. Appendix 11, [Table 5-3](#) shows that core areas are reduced by 60 acres from the Proposed Action and that traffic impacted areas are greater.

Gunnison's prairie dogs are found in one small location in the Gold Belt planning area. The Deer Haven sub-unit has a small colony that has maintained itself over several years. In the Current Use Alternative there are no routes that pass through the colony as currently mapped. In Appendix 11, [Table 5-4](#) it is demonstrated that there are no differences between alternatives in the amount of habitat impacted.

Impacts to Colorado Natural Heritage Program Element Occurrences are depicted in Appendix 11, Tables [6-1](#) and [6-2](#). Brandegee wild buckwheat, dwarf milkweed and golden blazing star are included in the table. In the Current Use Alternative BLM will allow travel in areas that are currently being impacted by unauthorized off-road use. Under this alternative, traffic impacts to buckwheat increase by 49 acres over the Proposed Action. Impacts to the buckwheat plant may increase over time as small user-created roads are established.

Dwarf milkweed and golden blazing star are sensitive plants that are found in the same area as the buckwheat plant. No system routes that currently exist are impacting dwarf milkweed or golden blazing star plants nor are any new routes planned in their habitat. Impacts to these plants may increase, however, as small user-created roads are developed. Appendix 11, Tables [6-1](#) and [6-2](#), shows that the Current Use Alternative will have no impact on dwarf milkweed. Approximately 20 acres of habitat for golden blazing star are

lost over the Proposed Action. The Current Use Alternative will have no measurable effects on the remaining element occurrences that are found in the planning area.

Proposed Action: The Proposed Action reduces road and trail densities to prevent disturbances to watersheds, riparian and wetlands, plant and animal communities and maintains viable interior habitat while managing increasing human traffic flow onto designated travel routes. It responds to larger ecosystem issues of fragmentation of wildlife habitat, private land subdivision, increasing regional road densities, loss of open space, increasing human traffic, and accelerating spread of user created routes on Public Lands. The following species are affected to some degree by this alternative.

Mexican spotted owls are found in the planning area in suitable habitats. Activities associated with travel, either motorized or non-motorized, can directly affect the nesting or wintering owls through auditory or visual disturbance. This disturbance can disrupt activities such as breeding, feeding, and roosting. Disturbances from humans during the breeding season can cause mortality of owls (particularly young) by flushing of birds that are then displaced from security cover or attacked by predators. Adult and fledged young may be flushed from their nesting or roosting areas by humans that approach too closely. All of these activities, if they occur during the breeding season, may result in nest abandonment or reduced reproductive success.

Construction, either authorized or unauthorized, of roads and trails in habitat may affect Mexican spotted owls. Inappropriate travel activities may indirectly affect them by changing the owl's habitat structure (snags, downed logs, woody debris, multi-storied canopies, dense canopy cover, etc.), potentially resulting in relocation of owls. In addition, travel activities may change the structure of the prey species' habitat, affecting the abundance and composition of prey species.

In Colorado, the characteristics of nest and roost sites of Mexican spotted owls place them at low risk for impacts from foot or motorized travel. Steep-walled, rocky canyons typical of local owl habitat are not readily accessible due to the rough topography. No occupied sites within the Royal Gorge Field Office have motorized use nearby nor do they contain constructed trails accessible to the public. Sites are accessed via canyon bottoms by traversing through nearly impenetrable vegetation, dead fall, and rock slides. Most sites are accessed through private lands and require permission from the landowners.

Under all alternatives, as shown in Appendix 11, Table [5-1](#) and [5-2](#), there appear to be impacts associated with each. Figures in the table that show impacts to spotted owl habitat are a result of County Road 67 (Phantom Canyon) that traverses an old nest territory that has not been occupied in recent years. Travel management decisions that would mitigate such impacts are not made on county roads. The Beaver Creek WSA contains most of the spotted owl territories and the area contains no motorized use. There are no existing routes nor are there any proposed routes in occupied spotted owl nesting territories. A small amount of hiking use is occurring in the WSA but no developed trails pass through any nesting territories.

Under the Proposed Action there will be minimal impacts to spotted owl Critical Habitat. One route to be created, designated as a foot and horse route, will be located in Critical Habitat and may pass through small areas that contain the “constituent elements” of spotted owl habitat. This route is located in the Cooper Mountain sub-unit and traverses the top of Cooper Mountain. Appendix 11, [Table 5-1](#), depicts the impacts associated with this route. Approximately 40 acres of core habitat will be impacted under the Proposed Action that is not currently affected. Approximately 2 % of BLM Critical Habitat will be impacted by traffic in the Proposed Action.

Overall, the implementation of the Proposed Action will have a negligible effect on Mexican spotted owls. All currently occupied sites are inaccessible due to topography limitations or because of private land access issues. There are no new routes proposed that occur within owl Protected Activity Centers (PAC). Extremely limited access (foot and equestrian) will be available within Critical Habitat as described above. The TMP will limit travel to designated routes throughout the planning area and will prevent future unauthorized travel on routes that have not been designated.

Bald eagles will not be directly impacted by any activity proposed in the Proposed Action. Approximately 60 acres of core habitat will be unaffected in the Proposed Action over that in the Current Use Alternative. Only 1.2 % of bald eagle habitat on Public Lands is impacted in the Proposed Action (Appendix 11, [Table 5-3](#)). Only one known nest site is located within the planning area and it is located on private land along Fourmile Creek north of Canon City. Eagles are likely to forage on Public Lands within the vicinity of the nest site. Under this alternative a number routes in the Dinosaur Flats and Oil Well Flats areas are to be closed to motorized use benefiting foraging eagles. Wintering bald eagles are found along the Arkansas River in the vicinity of the Blue Heron sub-unit east of Florence. The Blue Heron sub-unit was formerly a gravel mining operation. Large trees in the riparian community are limited to the eastern and western portions of the sub-unit. Under the Proposed Action a graveled road will parallel Highway 115 from the access point to a parking area near the river. These facilities are within 100 yards of the existing highway. There will be no disturbance to riparian vegetation. A seasonal spring closure of the northern pond for wildlife will be implemented as the Blue Heron Management Plan is implemented. There will be no impacts to bald eagles at the Blue Heron site.

Gunnison’s prairie dogs are found in one small location in the Gold Belt planning area. The Deer Haven sub-unit has a small colony that has maintained itself over several years. In the Proposed Action there is a proposed foot, horseback and bike trail between Rice Gulch and FCR 69. This proposed route will cross through the colony as currently mapped. Appendix 11, [Table 5-4](#) it is shown that only 0.1 % of habitat on Public Lands will be impacted if the Proposed Action is adopted. Mitigation may be appropriate if the proposed route can be located outside habitat for this species. If this route is approved, BLM Biologists will work with the Recreation staff to locate it outside of the occupied habitat.

Impacts to Colorado Natural Heritage Program Element Occurrences are depicted in Appendix 11, Tables [6-1](#) and [6-2](#). Brandegee wild buckwheat, dwarf milkweed and golden blazing star are included in the table. Brandegee Wild Buckwheat occurs in the planning area in suitable habitat. In the Proposed Action BLM will control travel in areas that are currently being impacted by unauthorized off-road use. Under this alternative traffic impacts to buckwheat are reduced by 49 acres from the Current Use Alternative. No system routes that currently exist are impacting the buckwheat plant nor are any new routes planned in buckwheat habitat. Impacts to the buckwheat plant will be reduced as small user-created roads are eliminated and the potential for future roads into habitat are eliminated.

Dwarf milkweed and golden blazing star are sensitive plants that are found in the same area as the buckwheat plant. In the Proposed Action BLM will control travel in areas that are currently being impacted by unauthorized off-road use. No system routes that currently exist are impacting dwarf milkweed or golden blazing star plants nor are any new routes planned in their habitat. Impacts to these plants will be reduced as small user-created roads are eliminated and the potential for future roads into habitat are eliminated. Appendix 11, Tables [6-1](#) and [6-2](#), shows that the Proposed Action will have no impact on dwarf milkweed. Approximately 20 acres of habitat for golden blazing star are protected over the Current Use Alternative.

The Proposed Action will have no measurable effects on the remaining element occurrences that are found in the planning area.

Low Use Alternative: This alternative provides for a relatively low level of access and travel opportunities and emphasizes the protection of ecosystems to restore, maintain and improve Public Land health. Improved Public Land health translates to improvements in habitat conditions and wildlife populations. Core areas for wildlife habitat are maximized in this alternative, habitat fragmentation is reduced, and wildlife corridors are maintained. This alternative will have the greatest benefit for T&E and sensitive species because habitats are avoided.

There will be no impacts to Mexican spotted owls from the Low Use Alternative. There will be no routes, either motorized or non-motorized, that will pass through nesting territories or habitats that contain constituent elements of habitat. The exception is the Phantom Canyon road that passes through portions of an old unoccupied nest territory. Figures depicted in Appendix 11, Tables [5-1](#) and [5-2](#), reflect acres impacted as a result of the Phantom Canyon road. The least amount of impacts to Bald Eagles will occur under this alternative. Potential foraging areas on Public Lands in the Dinosaur Flats and Oil Well Flats areas will be managed for limited motorized uses. There will be no impacts to Gunnison's prairie dog in the Low Use Alternative as there will be no routes that pass through habitat for this species.

Impacts to Colorado Natural Heritage Program Element Occurrences are depicted in Appendix 11, Tables [6-1](#) and [6-2](#). Brandegee wild buckwheat, dwarf milkweed and

golden blazing star are included in the table. In the Low Use Alternative BLM restricts travel in many areas. Under this alternative, travel impacts to buckwheat decrease by 69 acres from the Current Use Alternative.

Dwarf milkweed and golden blazing star are sensitive plants that are found in the same area as the buckwheat plant. No system routes that currently exist are impacting dwarf milkweed or golden blazing star plants nor are any new routes planned in their habitat. Appendix 11, Tables [6-1](#) and [6-2](#), demonstrates that the Low Use Alternative will have no impact on dwarf milkweed. About 38 more acres of habitat for golden blazing star are protected than in the Current Use Alternative. The Low Use Alternative will have no measurable effects on the remaining element occurrences that are found in the planning area.

High Use Alternative: This alternative analyzes the effects of implementing OHV route designations that provide a high level of motorized access and recreational use. This alternative allows for increased recreational travel with an emphasis on recreational benefits, opportunities, and access by providing high levels of hiking, biking, equestrian, and OHV travel for the public. It results in higher environmental impacts to Public Land health as measured by the cumulative travel-related impacts to soils, watersheds, riparian and wetlands, and plant and animal communities. It does not completely respond to larger ecosystem issues of fragmentation of wildlife habitat, increasing road densities, and loss of open space.

The High Use Alternative has only slight potential to impact T&E and sensitive species as demonstrated in Appendix 11, Tables [5-1](#), [5-2](#), [5-3](#), and [5-4](#). There are no existing routes nor are there any proposed routes in occupied spotted owl nesting territories (PAC). The Beaver Creek WSA contains most of the spotted owl territories and the area contains no motorized use. A small amount of hiking use is occurring in the WSA but no existing trails pass through any nesting territories. One route to be created, identified as a foot, horse and bike route, will be located in Critical Habitat and may pass through areas that contain the “constituent elements” of spotted owl habitat. This route is located in the Cooper Mountain sub-unit and traverses the top of Cooper Mountain.

Bald eagles may be affected by the high number and heavy use of roads and trails in the High Use Alternative. Only one known nest site is located within the area and it is found on private land along Fourmile Creek north of Canon City. Eagles are likely to forage on Public Lands within the vicinity of the nest site. Under this alternative most routes in the Dinosaur Flats and Oil Well Flats areas will remain open to motorized use and may impact foraging eagles. Wintering bald eagles are found along the Arkansas River in the vicinity of the Blue Heron sub-unit east of Florence. Under the High Use Alternative a graveled road will parallel Highway 115 from the access point to a parking area near the river. There will be no impacts to bald eagles at the Blue Heron site in this alternative. Appendix 11, [Table 5-3](#) shows the results of route analysis.

Gunnison’s prairie dogs are found in one small location in the Gold Belt planning area.

The Deer Haven sub-unit has a small colony that has maintained itself over several years. In the High Use Alternative there is a proposed foot, horseback and bike trail between Rice Gulch and FCR 69. This proposed route will cross through the colony as currently mapped. Mitigation may be appropriate if the proposed route can be located outside habitat for this species. If this route is approved, BLM Biologists will work with the Recreation staff to locate it outside of the occupied habitat. In Appendix 11, [Table 5-4](#) it is demonstrated that this alternative has the same affect to prairie dogs as the other alternatives.

Impacts to Colorado Natural Heritage Program Element Occurrences are depicted in Appendix 11, Tables [6-1](#) and [6-2](#). Brandegee wild buckwheat, dwarf milkweed and golden blazing star are included in the table. In the High Use Alternative BLM allows travel in many areas. Route impact analysis shows less core habitat and more acres of traffic impacted habitat for all species. No system routes that currently exist are impacting dwarf milkweed or golden blazing star plants nor are any new routes planned in their habitat. Appendix 11, Tables [6-1](#) and [6-2](#), demonstrates that the High Use Alternative will have no impact on dwarf milkweed. The High Use Alternative will have no measurable effects on the remaining element occurrences that are found in the planning area.

Name of specialist: Erik Brekke

VEGETATION (includes information related to Standard 3)

Affected Environment: A large portion of the planning area was included in a 2001 Public Land health assessment effort. Public Lands in the Fourmile and Upper Fourmile watersheds were assessed to determine compliance with Standards for Public Land Health. Standards for Public Land Health describe the conditions needed to sustain Public Land health and relate to all uses of the Public Land. These standards are further described in [Appendix 7](#). Public Land Health Standard No. 3 relates specifically to vegetation conditions and states, “Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations and ecological processes”.

The 2001 assessment indicated that out of approximately 65,000 acres of Public Land within the two watersheds, approximately 62,000 acres were meeting this standard. Of the approximately 3,000 acres that were not meeting this standard, over 2,800 acres were primarily due to increases in the amount and density of pinyon/juniper woodland vegetation over time. With the suppression and lack of naturally occurring fire in the area, pinyon and juniper canopies have steadily grown increasingly dense. These woodlands have begun to encroach into many open parks, meadows, grasslands and shrublands. As this continues over time, many areas are characterized by decreasing amounts of herbaceous plant cover and higher amounts of bare ground. Productivity, vigor and diversity of these areas begin to decrease. These areas begin to retain less moisture during precipitation events and allow higher levels of surface runoff and soil movement. These changes in the plant communities appear to be related primarily to the

lack of naturally occurring fire in the area. A small amount of vegetation problems (less than 200 ac.) were related to livestock grazing within the watershed. Livestock use in those specific areas has been addressed over the last several years through changes in livestock management and the implementation of several fencing projects.

The planning area includes a variety of vegetation communities ranging in elevation from 5,000 feet to 10,500 feet. Annual precipitation varies from 10-20 inches, depending largely upon elevation. July and August are usually the wettest months. Precipitation during these months, combined with the warmest temperatures during the year, combine to produce the best growing conditions for most plant species.

The plant communities occupying the planning area loosely correspond to the habitat types described in the Wildlife, Terrestrial portion of this analysis. In this Vegetation section, however, individual vegetation types are analyzed in slightly more detail than the habitat classification used in the Wildlife portions of this analysis. Two methods of vegetation classification were used in this analysis:

Range Site Descriptions are used to describe plant communities using the interaction of soil properties, elevation, precipitation, topography, etc., based on the *Soil Survey of Fremont and Teller Counties*. These site descriptions provide detailed information about the specific plant species that can be expected to be present in the potential natural community for each specific range site. The Soil Survey for Teller County (and several other counties within the RGFO), however, has not been finalized at this time, making it difficult to utilize this data in some portions of the planning area.

The Colorado Interagency Vegetation Mapping Project was developed by a number of agencies including Colorado Division of Wildlife, US Forest Service, BLM, and Natural Resources Conservation Service. This approach utilized satellite imagery to identify vegetation communities (referred to as vegetation classes) on a watershed basis. The vegetation mapping for this project has been completed throughout the RGFO. Therefore, this format was primarily utilized in this planning effort.

Vegetation accomplishes several key functions as part of the various landscapes within the planning unit. These functions include: providing forage and other habitat elements for wildlife; providing forage for domestic livestock use; streambank stabilization; and protection and stabilization of upland soil surfaces. Several of these functions are addressed in other portions of this analysis. Certain plant communities, however, also have specific characteristics that will be impacted differently by the amount and location of motorized roads and trails. The vegetation communities that were used for this analysis are described below:

Pinyon/Juniper Woodland Communities: Sites containing a significant amount of pinyon/juniper vegetation (including vegetation communities #43 Pinyon-Juniper, #53 Pinyon-Juniper-Oak Mix, #55 Pinyon-Juniper-Mountain Shrub Mix, and #56 Sparse Pinyon-Juniper/Shrub/Rock Mix) are the predominate vegetation communities found at lower elevations within the planning area. Sites containing significant amounts of pinyon/juniper vegetation generally are characterized by shallow soils and substantially

less herbaceous ground cover than most of the other communities. Erosion potentials for these vegetation communities tend to be somewhat higher due to these two influences. These communities also often occupy very steep, rocky terrain. Areas with steeper slopes have even higher erosion potentials. Also, due to the reduced amount of herbaceous vegetation and shallow soils, natural re-vegetation of disturbed areas, such as from roads or trails, is much slower in areas dominated by pinyon/juniper vegetation than in other communities.

Grasslands Communities: Sites containing a substantial grass or forb component (including vegetation communities such as #11 Grass Dominated, #13 Grass/Forb Mix, #32 Shrub/Grass/Forb Mix and #34 Rabbitbrush/Grass Mix) tend to have much deeper soils with a greater water-holding capacity than many of the other vegetation communities in the planning area. Communities containing a significant aspen component are similar in some of these characteristics. The deep soils and relatively shallow root systems of grass and forb species tend to make these sites somewhat more susceptible to damage from vehicle use than many of the other sites within the planning area. When soils are wet, these areas are highly susceptible to rutting from vehicle tires. Furthermore, under wet conditions, vehicle operators often tend to drive to the sides of existing ruts causing additional damage and “braiding” of trails that result in further loss of vegetation. Grassland communities, however, also tend to re-vegetate relatively rapidly when undisturbed.

Forest Woodland Communities: Most of these communities are dominated by coniferous woodland species such as ponderosa pine, Douglas-fir, lodgepole pine and Engelmann spruce. If undisturbed, they tend to have either:

- 1) Sufficient herbaceous understory species to provide soil protection and to control erosion. This is the case with ponderosa pine sites that often include an understory of shrubs such as Gambel oak or mountain mahogany or grass species such as Arizona fescue or mountain muhley; or
- 2) Sufficient forest litter (needlecast, etc.) to provide soil protection and to control erosion. This is the case with some of the spruce, fir or spruce/fir mix vegetation classes.

These communities occupy higher elevations than the pinyon/juniper woodland communities. Therefore, these sites receive greater amounts of precipitation.

Environmental Consequences:

Generally, since the establishment of a road or trail precludes vegetation from occupying the same location, there is no benefit to vegetation. The exception to this may apply where roads or trails are utilized to facilitate some type of land treatment, such as prescribed burning or weed treatments, etc., designed to improve vegetation conditions.

From a practical standpoint, the number of motorized roads or trails included in any of the

alternatives is insufficient to directly impact the total amount of vegetation resources in the planning area. For example, the pinyon/juniper vegetation community occupies almost 26,000 acres of Public Land within the planning area. Even under the Current Management Alternative (with a high number of roads and trails) only results in the direct loss of approximately 192 acres of pinyon/juniper vegetation, or less than 1% of the overall acreage occupied by this vegetation community.

While the direct impact of motorized roads and trails on the overall amount of vegetation resources may be slight, the environmental consequences of vegetation loss due to roads and trails can have a substantial impact on other resource values (soil erosion, wildlife forage and habitat, etc.). In order to achieve the desired future conditions of the planning area, and to conform with BLM's mission to manage for sustainable landscapes that are meeting the Standards for Public Land Health ([Appendix 7](#)), the interdisciplinary team attempted to limit motorized uses to the most appropriate areas. This portion of the analysis examines how vegetation characteristics of the planning area would be affected. Table 7 displays the acres of impacts to vegetation by alternative.

Table 7 Vegetation Impacts

	Acres of Vegetation Impacted	Acres of Vegetation Restored *
Current Use	771	9
Proposed Action	379**	417
Low Use	306	474
High Use	457**	339

* Through either reseeding projects or natural rehabilitation

** Includes construction of new routes

Current Use Alternative: Under the Current Use Alternative, vegetation would continue to be absent on approximately 780 acres of lands occupied by roads and trails. For "User Created" routes closed to public, this would result in 9 acres gradually re-vegetating over time. Motorized uses would still occur to a large extent in many of the sub-units that contain large amounts of open grassland communities and/or some of the more open ponderosa pine woodland communities. These areas, including the Little Mack Gulch, Penrose Commons, Brush Hollow, Garden Park, The Gulches, Shelf Road Climbing Area and Bare Hills sub-units, are particularly susceptible to damage from vehicular use off roads.

Under the Current Use Alternative, the Standard for Public Land Health for vegetation would be met for most of the TMP area. In some portions of the above listed sub-units, however, the impacts to vegetation caused by roads would increase over time and gradually move away from achieving the Standards for Public Land Health.

Proposed Action: Under the Proposed Action vegetation on approximately 363 acres would continue to be absent on lands occupied by existing travel routes and 16 acres

would be impacted by the construction of new routes. The routes that would be closed to motorized use, combined with the new routes to be built, would still result in a net improvement to vegetation on approximately 417 acres or 53 % of the amount of vegetation currently impacted by motorized routes.

Under the Proposed Action non-motorized uses are emphasized in most of the sub-units, resulting in substantially reduced impacts to vegetation than under the Current Use Alternative. Some routes would be closed or restricted to uses that would reduce travel-way widths, resulting in increased vegetation cover along these routes.

Under this alternative, motorized uses are emphasized in the Penrose Commons and Seep Springs sub-units. Both of these sub-units are dominated by pinyon/ juniper woodland vegetation communities (68 % in Penrose Commons and 81 % in Seep Springs) interspersed with grassland vegetation communities. These communities contain only a small amount of herbaceous ground cover that could be impacted by vehicles. Nevertheless, some increased impacts to vegetation would occur in both sub-units, resulting from the construction of new routes. Because of the high level of motorized uses already occurring in these sub-units, the additional impacts would be only slightly greater than under the Current Use Alternative.

After implementation of travel management in the planning area, there could be continuing problems with illegal motorized vehicle use occurring off designated routes. Areas that contain large amounts of open grassland communities and some of the relatively open ponderosa pine woodland communities are particularly susceptible to damage from this type of use. By emphasizing motorized use in the Penrose Commons and Seeps Springs sub-units, the impacts to vegetation in other areas should be reduced, resulting in a net benefit to vegetation throughout the planning area.

Under the Proposed Action, most of the TMP area would be meeting or moving towards meeting the Standard for Public Land Health for vegetation. In the Penrose Commons and Seep Springs sub-units, however, some movement away from meeting the Standards would occur as a result of the greater number of roads and increased motorized use in these areas.

Mitigation:

1. Reroute those sections of roads in grassland areas that show unnecessary impacts to vegetation, such as braided or parallel routes.
2. Areas containing grassland communities that have the potential for damage under heavy motorized vehicle use should be temporarily closed during periods of wet weather.
3. In areas where motorized use continues to occur off designated roads, implement measures to prevent this activity with signs, fencing, barriers, and other appropriate means.

Low Use Alternative: The Low Use Alternative provides the most benefit to vegetation resources within the planning area. Under the Low Use Alternative, vegetation would continue to be absent on approximately 306 acres of lands occupied by existing roads and trails. No new travel routes are constructed in this alternative, and the routes that would be closed to motorized uses would result in a substantial improvement to vegetation on approximately 474 acres or 61 % of the amount of vegetation currently impacted by motorized routes. Motorized uses would be reduced or precluded in many of the vegetation communities that are most susceptible to damage from vehicles driving off roads.

Under the Low Use Alternative, most of the TMP area would be meeting or moving towards meeting the Standard for Public Land Health for vegetation. Of the action alternatives, however, this alternative provides for the fewest number of roads and thereby would have the least impact on the vegetation standard.

Mitigation: Same as Proposed Action.

High Use Alternative: Under the High Use Alternative vegetation on approximately 457 acres would continue to be absent on lands occupied by existing travel routes and 16 acres would be impacted by the construction of new routes. The routes that would be closed to motorized use, combined with the new routes to be built, would result in a net improvement to vegetation on approximately 339 acres or 43 % of the amount of vegetation currently impacted by motorized routes. The High Use alternative is similar to the Current Use Alternative in that motorized use would occur to a large extent in many of the sub-units that contain large amounts of open grassland communities and some of the more open ponderosa pine woodland communities. Vegetation communities in these areas are likely to deteriorate under the High Use Alternative.

Under the High Use Alternative, most of the TMP area would be meeting or moving towards meeting the Standard for Public Land Health for vegetation. Some small areas that are more affected by travel uses may not be moving towards meeting the standard. Of the action alternatives, however, this alternative provides for the greatest number of roads and thereby would have the greatest impact on the vegetation standard.

Mitigation: Same as Proposed Action.

Name of specialist: Keith Berger

WASTES, HAZARDOUS OR SOLID

Affected Environment: Easy access to Public Lands from Canon City and other communities and tipping fees charged at legal disposal sites result in some dumping of materials on Public Lands. The dumping is minor and isolated; although there is some evidence that frequency of dumping may be increasing. The increase in dumping is probably related more to a growing population in the area than to any other factor. Dumping is typically exempt household solid

waste consisting of building materials, furniture, appliances and yard waste. Dumping of hazardous materials occurs rarely. Dumped materials that may include hazardous waste are typically oil products and remnants of methamphetamine labs. Both types of wastes are cleaned up and properly disposed of as an ongoing part of Public Land management.

Environmental Consequences & Mitigation:

Impacts Common to All Alternatives: None of the considered alternatives will directly result in the generation, use, storage or disposal of hazardous or solid waste as a direct result of this action. Specific mitigation for hazardous or solid waste is unnecessary. It will remain the policy of the BLM that dumped wastes will be legally disposed of as soon as they become known, as a means of protecting the safety of the Public Land user and land management employees. In cases where the person responsible for the dumping can be determined, legal action will be taken to compensate the government for disposal costs and to deter additional dumping by the public.

Name of specialist: Mike Gaylord

WATER QUALITY - HYDROLOGY (includes information related to Standard 5)

Affected Environment: The Gold Belt planning area involves eight 5th level watersheds and forty-eight 6th level watersheds of which 18 of the 6th level are affected by travel planning decisions. The names and Hydrologic Unit Codes (HUC) of these watersheds are listed in (Tables 8-1 & 8-2). These watersheds are all tributary to the Arkansas River and supply water for many downstream users. Among the users is the Park Center Water District, taking water directly out of Fourmile Creek on BLM lands and serving over 1,000 homes. Another major user is the community of Penrose that gets all of its water from Beaver Creek, flowing through BLM land most of its length.

Table 8-1 5th Level Watersheds in the Gold Belt planning area

5th Level Watershed Name	Hydrologic Unit Code
Beaver Creek	1102000201
Cañon City Composite	1102000204
Fourmile Creek	1102000203
Upper Fourmile Creek	1102000202
Eightmile Creek	1102000205
Royal Gorge Composite	1102000110
Tallahassee/Current Creek	1102000112
Turkey Creek	1102000209

Table 8-2 6th Level Watersheds in the Gold Belt planning area

6th Level Sub-Watershed Name	Hydrologic Unit Code
Barnard Creek	110200020302
Canon City	110200020405
Cripple Creeks	110200020301
East Beaver Creek	110200020104
Eightmile Creek	110200020501
Florence	110200020406
Garden Park	110200020306
Helena Canyon	110200020304
High Creek	110200020303
Lowest Currant Creek	110200011206
Middle Beaver Creek	110200020102
Middle Currant Creek	110200011204
Millsap Creek	110200020305
Penstock Canyon Creek	110200020103
Portland Creek	110200020408
Royal Gorge	110200011014
Sand Creek	110200020404
Wilson Creek	110200020307

Historical Overview: Since European settlement, the Gold Belt area has experienced many changes in land use. Beginning in the mid-to-late 1800s, mining and related logging in the Cripple Creek area disturbed much of the headwaters of Fourmile Creek. The removal of trees in the area led to an increase in runoff and frequently tailings piles were placed in streams. These impacts can be seen today in tailings piles scattered throughout the area. Some of the piles near Victor are still producing enough sediment that water quality in Milsap Creek is seriously impaired.

After the mining boom, overgrazing by cattle and sheep in the early 1900s damaged many of the watersheds in the planning area. These grazing practices resulted in stream channels losing their stability due to a combination of two factors. The first factor was that grazing increased the magnitude and timing of runoff, resulting in excess water delivery to the stream channels. The second factor was the removal of streamside vegetation that historically stabilized the channel and allowed flood flows to pass without channel damage.

Travel corridors for timber cutting and settlement were put in near or immediately adjacent to watercourses during the early to mid 1900s. These routes further increased sediment yields and the magnitude of water flow throughout the area. Roads also went through riparian vegetation, further damaging stability by reducing valley width. Once a channel destabilizes it will try to reach a balance between the new flows and sediment load. Many of the channels in the planning area did this by down cutting and adding more sediment to the system.

During the mid 1900s, aggressive rehabilitation was undertaken that included check dams, road maintenance, and better grazing practices. This improved the situation in many of the channels

throughout the area but many are still stabilizing.

Existing Conditions: The Colorado BLM is directed to address the Standards for Public Land Health. Standard number five is directed at water quality and states that, “The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the water quality standards established by the State of Colorado. Water quality standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under state law as found in (5 CCR 1002-8), as required by Section 303(c) of the Clean Water Act.” The Standards for Public Land Health are discussed in greater detail in [Appendix 7](#).

The Colorado Water Quality Control Act gives authority to the Colorado Water Quality Control Commission to classify and assign numeric standards to state waters. State waters are classified for the present beneficial uses of water, or the beneficial uses that may be reasonably expected in the future. The classifications for beneficial uses include: aquatic life, recreation, agriculture, and water supplies for various purposes. The numeric standards are assigned to define the allowable concentrations of various parameters under the following categories: physical and biological, inorganic and metals.

The Colorado Water Quality Control Commission has included a narrative statement in the Basic Standards for all surface waters that states, in part: "All waters (except in wetlands and/or except where authorized by approved permits, certifications or plans of operation) shall be free from substances attributable to human caused point or non-point source discharges in amounts, concentrations or combinations that:

1. Can settle to form bottom deposits detrimental to the beneficial uses.
2. Are harmful to the beneficial uses or toxic to humans, animals, plants or aquatic life.
3. Produce a predominance of aquatic life (CO Dept of Health and the Environment)".

Both sediment and nutrient loading in surface waters could result in violations of the above standard.

Waters within the state that are not meeting state water quality standards are placed on the 303(d) list until the water quality is improved. Waters that are thought to be impaired but not enough data exists to make a determination, are placed on the monitoring and evaluation list. Currently, waters within the planning area that are on the 303(d) list (Colorado Department of Public Health and Environment, 1998) are Cripple Creek from Arequa Gulch to Fourmile Creek and the entire length of Arequa Gulch. These waters are impacted by heavy metals associated with mining. The entire reach of Fourmile Creek is on the monitoring and evaluation list for total recoverable iron. Water Quality in Milsap Creek from its headwaters near Victor to its confluence with Fourmile Creek is severely degraded due to sediment.

Many water sources (springs, seeps, water developments, and wells) on public lands within the planning area have adjudicated water rights for beneficial uses, including livestock, wildlife, human consumption, recreation, and fire suppression. Sediment entering these sources shortens

their life span and increases the amount of maintenance that is required. Many of the structures were also designed to accommodate a specific amount of runoff. Increased runoff could threaten the structural integrity of these structures. Other than the waters that are not meeting state water quality standards, all waters within the TMP area are meeting the water quality Standard for Public Land Health.

The increase and the total number of travel routes seen today have a definite negative influence on water quality and hydrology, much like was seen in the earlier part of the 20th century. As routes and use increase, soil stabilizing vegetation is removed and soils are compacted, leading to increased runoff, sedimentation and downstream channel destabilization.

Environmental Consequences:

Effects Common to All Alternatives: There are few, if any, environmental benefits to the watershed and water quality from roads and trails. All alternatives in this plan would have negative impacts to water quality and hydrologic functions in varying degrees depending on the miles of roads and trails that are designated for use. The largest impact is sediment. Sediment loads carried by drainages are a natural part of watersheds and maintains relative stability among bed and banks, including erosion and deposition. Erosion in a watershed resulting from roads and other disturbances can overload a channel, aggrading the bed, changing channel pattern, and causing sedimentation of lakes, reservoirs, and ditches, along with changing stream response to flood waters. The sedimentation of lakes, reservoirs and ditches could have an effect on the beneficial uses of the waters as water users would be required to maintain water developments more frequently. The amount of additional sediment and runoff from roads and trails varies by type and levels of use. Given the same soil types and slopes, foot trails with low use will have much less impact to the watershed than a wide road that is heavily used by vehicles. In general, impacts increase as width and weight increase. The Soils Section of this document quantifies the amount of erosion and/or sedimentation in the Seep Springs Draw sub-unit and represents the difference between all the alternatives across the entire planning area.

Along with increased runoff, time-to-peak, erosion and sediment, roads and trails located in channel bottoms have the most impact. These is because they remove stabilizing vegetation and make substrate available for mobilization and increase sediment loads over longer distances then do roads in upland areas.

Route location is the biggest factor in the actual amount of impact to a waterway. A route that is closer to a waterway will generally have a greater impact then one with a ridge top location. Along with road location, road density can be looked at to get an idea of the overall amount of impacts roads have on a watershed. Road density is the total number of miles of roads per square mile in a given area. Higher road densities generally equal greater impacts to the watershed. Road densities of 15 miles/square mile are typical densities of urban areas.

The amount and time of use also has a large bearing on the level of impact that routes

have on a watershed. Use during wet periods results in increased soil movement and delivery. The ruts caused by use during wet periods also cause routes to widen because, during dry periods, users will try to stay on the smoother surfaces on either side of the ruts.

In general, route impacts can be mitigated in one of two ways. The first is proper construction and maintenance of routes following Best Management Practices. The second is closure of routes during wet periods. Proper construction includes locating the route away from drainages. Routes that are located in drainage bottoms are, at best, very difficult to mitigate.

The Gold Belt planning area has a very diverse land ownership pattern that is rapidly changing. In looking at the entire area, there are many factors affecting the water quality and hydrology. Much of the private land in this area is being subdivided and becoming increasingly developed with new roads and home sites, adding to the impacts in the watersheds. Thirty-five and forty acre parcels that were formerly parts of large ranches and used primarily for livestock grazing are now being occupied for home sites with individual water wells, septic systems and roads. See [Appendix 12](#) for table displaying miles of roads per square mile of land area that would be provided under each alternative and Appendix 12, [Map 23](#) showing densities of existing roads within the Gold Belt TMP area.

Along with the impacts caused by the development of new roads and home sites, there are impacts associated with grazing and historical mining that continue to influence the water quality in the waters of the Gold Belt planning area and downstream users. The Gold Belt TMP is an important piece of the watershed management equation. It will determine the kinds and amounts of travel uses that will be allowed on the Public Lands within the affected watersheds. As the development of private lands for residential homes, and the demand for recreational uses on Public Lands continue to increase, the decisions made in the Gold Belt TMP will play an important role in determining the overall health of these watersheds.

Current Use Alternative: Under this alternative a total of 136 miles of roads and trails would be designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 104 miles would be designated for motorized uses and 32 miles for non-motorized and mechanized uses. Compared to the Proposed Action and Low Use Alternative, the total amount of sediment and pollutants entering the stream system from the available roads and trails would be high and require mitigation (see below). Road densities in 6th level watersheds under this alternative would range from 1.6 to 8.2 miles of roads/square mile, with an average of 3.3. Many areas would continue to have high road densities and would retain many short spurs and duplicate routes, adding to the impacts to the watershed. Under this alternative there would be the greatest possibility that the water quality Standard for Public Land Health would not be met in localized areas.

Proposed Action: Under this alternative a total of 157 miles of roads and trails would be

designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 75 miles would be designated for motorized uses and 82 miles for non-motorized and mechanized uses. The amount of sediment entering the stream system from designated roads and trails would be moderate and require mitigation (see below). Road densities 6th level watersheds under this alternative would range from 1.6 to 8.2 miles of roads/square mile, with an average of 3.2. Some areas would have lower road densities than under the High Use Alternative, while some areas would have higher road densities than under the Low Use Alternative. In particular, Seeps Spring Draw, Garden Park, and Penrose Commons sub-units would be similar to the High Use Alternative, resulting in higher impacts. The Gulches sub-unit would be similar to the Low Use alternative and have much less impact on water quality and hydrologic function than the High Use Alternative. This alternative results in high road densities in the Penrose sub-unit and does not alleviate local concerns of sediment loading in Brush Hollow Reservoir. Under this alternative there would be a moderate possibility that the water quality Standard for Public Land Health would not be met in some localized areas.

Low Use Alternative: Under this alternative a total of 85 miles of roads and trails would be designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 37 miles would be designated for motorized uses and 48 miles for non-motorized and mechanized uses. This alternative would generate the least amount of sediment and pollutants from the designated transportation system and require the lowest amount of mitigation. Road densities within 6th level watersheds under the Low Use Alternative would range from 1.4 to 8.2 miles of roads/square mile, with an average of 3.0. This would leave many areas with much lower road densities and impacts than any of the other alternatives. Most notably, Penrose Commons, Garden Park, and Seeps Springs Draw sub-units would have lower roads densities than the other alternatives, resulting in much lower sediment originating from these areas. The water providers for the community of Penrose have expressed concerns over the amount of roads in the Penrose Commons sub-unit, and this alternative would address some of their concerns. Under this alternative there would be the smallest possibility that the water quality Standard for Public Land Health would not be met in localized areas.

High Use Alternative: Under the High Use Alternative a total of 190 miles of roads and trails would be designated for public travel uses, not including Non-BLM routes (county and state highways). Of this total, 120 miles would be designated for motorized uses and 70 miles for non-motorized and mechanized uses. The amount of sediment entering the stream system from designated roads and trails would be very high and require extensive mitigation (see below). Road densities within 6th level watersheds under this alternative would range from 1.6 to 8.2 miles of roads/square mile, with an average of 3.3. Many areas would have very high road densities under this alternative. The Penrose Commons sub-unit in particular would include more roads than there are currently and the Gulches sub-unit would be heavily impacted by roads in poor locations and on steep slopes that would be very difficult to mitigate. Under this alternative there would be the greatest possibility of the action alternatives that the water quality Standard for Public Land Health would not be met in localized areas.

Mitigation:

1. All new road construction resulting in more than 1 acre of disturbance would require either a Phase I or II Storm Water Permit. Most likely, any roads being constructed would require a Phase II permit that is needed with any surface disturbing activity between 1 and 5 acres. A Phase II permit would require that a storm water plan be developed and implemented that reduces water pollution to the “maximum extent possible” in order to protect water quality and aquatic habitat, and ultimately meeting the requirements of the Clean Water Act.
2. Route maintenance, proper construction, and wet weather closures are the best way to mitigate the effects of roads on water quality and hydrologic function. It is assumed that under all alternatives, routes will be adequately maintained and constructed over time as problems are found. Wet weather closures are designed into the alternatives to mitigate some of the effects that would result from the plan. If a severe problem occurs that cannot be mitigated by other means, construct sediment detention structures and clean them on a regular basis.
3. If during monitoring, a road is discovered that is causing unacceptable impacts, it should be closed or re-routed as soon as possible if it cannot be mitigated any other way.

Name of specialist: John Smeins

WILDERNESS, AREAS OF CRITICAL ENVIRONMENTAL CONCERN, WILD AND SCENIC RIVERS

Affected Environment: The Gold Belt planning area includes Public Lands within the Beaver Creek WSA, the Beaver Creek ACEC, the Phantom Canyon ACEC, and the Garden Park ACEC. There are no designated Wildernesses or Wild and Scenic Rivers within the Gold Belt planning area.

Wilderness Study Areas:

Background: The Beaver Creek WSA (CO-050-016) is located approximately 10 miles northeast of Canon City and 12 miles southwest of Colorado Springs. The WSA includes approximately 26,150 acres of Public Lands. There are also 870 acres of the Beaver Creek State Wildlife Area that are located along the West and East Forks of Beaver Creek. The landscape includes rocky hills in the southern portion of the WSA and steep rugged peaks in the northern portion. Elevations range from 6,200 feet along the lower reaches of Beaver Creek to 9,900 feet at Crown Point in the north. The vegetation is very diverse and includes semi-arid species in the lower elevations, riparian zones along streams, and spruce, fir and pine forests on the mountain slopes.

The wilderness characteristics highlighted in the *Wilderness Study Report*, October 1991 for Beaver Creek include: naturalness, outstanding opportunities for solitude, outstanding opportunities for primitive and unconfined recreation, and several special features. The special features include excellent habitat for peregrine falcon; the highest concentrations of mountain lion in Colorado; several plant and animal species of special concern; and a number of opportunities for education and scientific study.

The initial inventory report (1980) identified only minor imprints of man within the Beaver Creek area. The travel related imprints of man, including old trails or ways along West and East Mill Gulches and trails along an old powerline with occasional standing power poles still evident.

The Beaver Creek WSA was designated in the early 1980s by BLM. The WSA has been managed in accordance to the Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP) since that time. These guidelines restrict the use of any motorized (vehicles) and mechanized (mountain bikes) equipment in the WSAs. The Royal Gorge RMP also designated all WSAs within the Royal Gorge Field Office as closed to all motor vehicles. This designation refers to public use, other permitted vehicular use is allowed with authorization from the BLM in accordance with the Interim Management Policy.

Existing Use of the WSA: There are three primary public access sites into the WSA, the Beaver Creek Trailhead (south side), the Holbert Trailhead (west central side along Phantom Canyon road), and at Skaguay Reservoir (northwest

side). Public use into the WSA primarily occurs from these three locations. The majority of the use has been occurring at the Beaver Creek Trailhead. The Beaver Creek Trailhead and most of the trail in the lower end of Beaver Creek is within the Beaver Creek State Wildlife Area. The mileages for these trail segments were not included in the BLM inventory because management jurisdiction for these trails rests with DOW. A traffic counter was installed at the Beaver Creek Trailhead in 1989 by BLM to determine the number of people using the area. The use has grown from approximately 2,000 vehicles annually in 1989 to approximately 6,000 in 2002. The types of activities occurring within the area are hiking, hunting, fishing, backpacking, photography, camping, and watching wildlife. The use has increased over the last 20 years but the types of activities occurring have stayed relatively the same.

Areas Of Critical Environmental Concern:

Background: The Royal Gorge RMP designated ACECs in 1996. These areas are to be managed to protect and enhance the special values that were identified in the RMP. No site specific plans have developed regarding the ACECs. Other plans, such as the Gold Belt Tour Byway Plan and the Garden Park Fossil Area plans have addressed the importance of these ACECs.

The special values found in the Beaver Creek ACEC (13,734 acres) include: outstanding visual resources; wildlife habitat (raptors, bighorn sheep, and mountain lions); important qualities of naturalness; primitive recreation opportunities; and water-related recreation opportunities.

The special values occurring in the Phantom Canyon ACEC (7,200 acres) include: outstanding historical values; outstanding scenic qualities; diverse recreation opportunities; wildlife habitat; riparian habitat; and important archaeological and paleontological resources.

The special values in the Garden Park ACEC (2,724 acres) include: outstanding paleontological resources; special status plants; historical values; naturalness; and undeveloped recreation and water-related recreation opportunities. The area contains some of the most important quarries for dinosaur fossils in the world. In addition to the ACEC designation, a portion of the area was also designated as a Research Natural Area by BLM and the Colorado Natural Areas Program in 1991 and 40 acres of the area were designated a National Natural Landmark by the National Park Service in 1972.

Existing Use of ACECs: Public use of the **Beaver Creek ACEC** is the same as described above for the Beaver Creek WSA.

Phantom Canyon ACEC is accessed by FCR 67, commonly referred to as the Phantom Canyon road. The ACEC is a narrow linear strip of land that parallels FCR 67 and is also one route of the Gold Belt Tour National

Scenic Byway. The drive along Phantom Canyon is one of the most popular scenic drives in Colorado. Since 1985 use has remained at fairly constant level of approximately 45,000 vehicles per year. Traffic counter data indicates that the road was used by approximately 47,700 vehicles in 2002. Use has been as high as 65,770 vehicles in 1992 and 63,420 in 1998. A 1990 visitor use survey determined that 2.4 visitors/per vehicle were averaged along this route. Using last year's visitation estimate of 47,700 vehicles times 2.4 visitors/per vehicles, this equates to approximately 114,480 visitors per year enjoying the Phantom Canyon area. The types of activities occurring within the area are scenic driving for pleasure, dispersed camping, target shooting, wildlife observation, photography, visiting historic sites, picnicking and day hiking. The high numbers of visitors are concentrated along the county road and canyon bottom and very little use occurs away from the road. The canyon is narrow and the steep terrain discourages most visitors from going very far from the road. User conflicts and safety concerns associated with target shooting exist in the area.

Garden Park ACEC is accessed by FCR 509B, commonly referred to as the Shelf Road, another of the routes of the Gold Belt Tour National Scenic Byway. The Garden Park ACEC is close to Canon City (approximately 6 miles north) and has been a recreational playground for local residents for many years. The area is also used heavily by tourists along the county road. The estimated use along the county road in 2002 was 30,800 vehicles. The estimated use in the upland areas in 2002 was 25,800 annually. The corridor along the county road has a higher concentration of use by both local residents and scenic byway visitors for water-related recreation, camping, hiking, picnicking, and learning about fossils. The upland areas accessible from the Dinosaur Flats and Oil Well Flats roads are used primarily by local or regional residents, including hikers, mountain bikers, target shooters, hunters, picnickers, off-road vehicle drivers, and fossil enthusiasts. The types of uses occurring in the area have resulted in natural resource damage, visitor safety concern and user conflicts. There have been serious safety concerns and user conflicts over the last 10 years regarding recreational target shooting. Many of the motorized routes are located close to sensitive fossil resources and special plant habitat. On a case-by-case basis, several of the roads have been closed to motor vehicles over the last several years to protect damaged resources. The area, due to its proximity to Canon City, also receives a high degree of illegal activity such as trash dumping, litter from target shooters, unauthorized route proliferation, theft of fossil resources, underage parties, methamphetamine production and recurrent vandalism to signs. The primary direct impacts include: vehicle damage to fossil and plant resources, damage from target shooting, and theft of fossil resources. The primary indirect impacts include: litter, vandalism, dumping, noise, user conflicts and new route proliferation.

Environmental Consequences & Mitigation:

Current Use Alternative: Beaver Creek WSA and Beaver Creek ACEC - Under the Current Use Alternative only non-motorized and non-mechanized forms of recreation are permitted to occur within these areas. Currently, the trails within the Beaver Creek WSA and the Beaver Creek ACEC are not causing any negative impact on the special values for which the area was designated. The Current Use Alternative includes two non-motorized trails into the area. All other trails or routes identified in the inventory under this alternative are shown as closed. The two non-motorized trails in the area include the Beaver Creek/Trail Gulch loop trail and the Holbert Trail, both used by the public for many years. Both are existing trails and are adequate for access into the area. This alternative meets the sub-unit goals (see Sub-unit Scale Analysis section) for this area and complies with the Interim Management Policy. No short term, long term, or cumulative impacts to wilderness or ACEC values are anticipated as a result of this alternative.

Phantom Canyon ACEC - The Current Use Alternative would continue to allow motorized and non-motorized recreation to occur within the area. Currently, the roads and trails within the Phantom Canyon ACEC are not causing any negative impacts on the special values for the area. The majority of the users are those driving the county road and viewing the scenery and wildlife. The dispersed camping along the county road is causing some impacts in the area to soils, riparian, and water quality (from sanitation concerns) but the camping at this time is not impacting the ACEC's special values. No short term, long term, or cumulative impacts to the ACEC values directly resulting from the use of travel routes are anticipated as a result of this alternative. Safety concerns and user conflicts associated with target shooting would continue to occur under this alternative.

Garden Park ACEC - The Current Use Alternative of the Garden Park ACEC would allow continued use of the existing routes, including motorized routes (17.4 miles) and non-motorized routes (9.4 miles). The current impacts to the Garden Park ACEC include vehicle impacts into sensitive fossil and plant areas, target shooting impacts, theft and damage to fossil resources, litter, vandalism, dumping, noise, user conflicts and new route proliferation. Many of these impacts are directly associated with vehicular routes. The Current Use Alternative would continue to allow negative impacts to fossil and plant resources to occur. This alternative would not meet the goals and management direction set forth by the RMP and the Gold Belt Tour Byway Plan. Short term, long term and cumulative impacts resulting from the use of travel routes would occur and impact the ACEC values for this area. Safety concerns and user conflicts associated with target shooting would continue to occur under this alternative.

Proposed Action: Beaver Creek WSA and Beaver Creek ACEC - The Proposed

Action is essentially the same as the Current Use Alternative. The effects would be the same as stated in the Current Use Alternative.

Phantom Canyon ACEC - The Proposed Action has only minimal changes from the Current Use Alternative. The effects resulting from the use of travel routes would be the same as stated in the Current Use Alternative. Safety concerns and user conflicts associated with target shooting would be reduced under this alternative.

Garden Park ACEC - The Proposed Action would allow a moderate amount of motorized use (9.7 miles) and non-motorized use (7.6 miles) in the area. The Proposed Action would reduce the motorized access by about 50 % and would slightly reduce the amount of non-motorized access. This alternative would reduce many of the impacts to the fossil and plant resources and would help to control the illegal activities and user conflicts throughout the area. This alternative would meet the goals and management direction set forth by the RMP and the Gold Belt Tour Byway Plan. No short term, long term, or cumulative impacts to the ACEC values resulting from the use of travel routes are anticipated as a result of this alternative. Safety concerns and user conflicts associated with target shooting would be reduced under this alternative.

High Use Alternative: Beaver Creek WSA and Beaver Creek ACEC - The High Use Alternative is essentially the same as the Current Use Alternative. The effects would be the same as stated in the Current Use Alternative.

Phantom Canyon ACEC - The High Use Alternative has only minimal changes from the Current Use Alternative. The effects resulting from the use of travel routes would be the same as stated in the Current Use Alternative. Safety concerns and user conflicts associated with target shooting would be reduced under this alternative.

Garden Park ACEC - The High Use Alternative for the Garden Park ACEC would allow a high amount of motorized routes (17.2 miles) and a much lower amount of non-motorized routes (3.3 miles). The High Use Alternative would better direct vehicular use away from the more sensitive fossil and plant resources but would continue to allow a high concentration of vehicle use to occur. This alternative would continue to allow many of the illegal activities and indirect impacts to occur since they are linked with vehicular use, such as illegal dumping, vandalism, underage parties, user conflicts, and new route proliferation. This alternative would not meet the goals and management direction set forth by the RMP and the Gold Belt Tour Byway Plan. Short term, long term and cumulative impacts related to the use of travel routes would occur and impact the ACEC values for this area. Safety concerns and user conflicts associated with target shooting would be reduced under this alternative.

Low Use Alternative: Beaver Creek WSA and Beaver Creek ACEC - The Low

Use Alternative is essentially the same as the Current Use Alternative. The effects would be the same as stated in the Current Use Alternative

Phantom Canyon ACEC - The Low Use Alternative has only minimal changes from the Current Use Alternative. The effects resulting from the use of travel routes would be the same as stated in the Current Use Alternative. Safety concerns and user conflicts associated with target shooting would be reduced under this alternative.

Garden Park ACEC - The Low Use Alternative for the Garden Park ACEC would allow fewer opportunities for motorized routes (7.5 miles) and an increased amount of non-motorized routes (11.5 miles). The Low Use Alternative would greatly reduce the motorized access to the east side of the area and somewhat reduce the motorized access on the west side. This alternative would reduce many of the illegal activities and indirect impacts that occur since they are linked with vehicular use. This alternative would meet the goals and management direction set forth by the RMP and the Gold Belt Tour Byway Plan. No short term, long term, or cumulative impacts to the ACEC values resulting from the use of travel routes are anticipated as a result of this alternative. Safety concerns and user conflicts associated with target shooting would continue to occur under this alternative

Name of specialist: Diana Kossnar

WILDLIFE, AQUATIC (includes information related to Standard 3)

Affected Environment: Stability characteristics of aquatic wildlife populations are dependent upon the habitat in which they reside. Impacts to wetland and stream habitats for this planning area are broad and are described within the Floodplain/Wetlands/Riparian, Water Quality/Hydrology, and Soils sections of this document. In summary, the aquatic habitats in the planning area related to travel management are primarily impacted by: impairment of riparian function due to sediment loading from travel routes; changes to water tables; changes to hydrologic runoff patterns and channel modifications (down-cutting); and to a lesser extent from vehicles driving directly in the waterways. There are many viable populations of aquatic wildlife species, including important fisheries, present within this region. There are 146 miles of stream with fisheries, 34 % (50 miles) are on Public Lands. No threatened or endangered aquatic species are imperiled due to the current transportation network. Poor travel management planning and excessive road density, however, limits the viability of the species that are present. Leopard Frogs are a species of Special Concern both to the State of Colorado and BLM. These frogs do well in many ponds in the planning area but, as stated in the Water Quality/Hydrology section, silting affects these pond habitats. Viability of some fish populations in the planning area is related to high sediment load. Sediment impacts food chains, pool depths, bank stability, spawning areas, and a host of other variables that limit population viability. High sediment systems are prone to increases in the effects of whirling disease and other silt favored host pathogens.

In order to meet Public Land Health Standards, the health of aquatic resources needs to be maintained or improved. Improvement needs to partially come by reversing the negative affects in the trend of route proliferation and poor route maintenance in some areas. To the extent possible, direct impacts to streams, riparian area, and tributary channels caused by routes and trails should be reduced through reduction in the number of crossings, miles of routes within or near drainages, improved route maintenance, and the implementation of road design Best Management Practices. Direct and indirect disturbance of wetland vegetation and standing or flowing water should be reduced so that these areas can function properly to provide maximum benefits to aquatic wildlife populations.

Numerous route segments were evaluated. Each segment has unique variables and settings that determine its relative impact to aquatic environments. Slope, soil, surrounding vegetation, distance to wetlands, and channel type are prominent variables that determine direct, indirect, and cumulative impacts to water. As discussed previously, current floodplain resource condition in much of the planning area is degraded by many factors that impair aquatic habitat. Equally important to current condition is the fact that the trend for un-managed growth of route networks on Public and private land is moving towards further degradation.

Environmental Consequences

Comparison of Alternatives: [Table 4](#) (see the Floodplain/Riparian section), serves as a summary between alternatives of the numerous indicators of road/water interaction that affect aquatic wildlife and their habitat. The Current Use Alternative would result in some improvement of aquatic resources resulting from the closure of user created routes. It does the least to protect aquatic environments. The High Use Alternative would result in increased degradation in a few areas where there is presently fairly undisturbed habitat (areas west of the Shelf Road Climbing Area). The Low Use Alternative best protects sub-regions that are richer in aquatic environments than the Proposed Action (see summary statistics in the Floodplain/Riparian section). The difference, however, is only slight. Generally, fewer roads in a watershed are beneficial to moving or maintaining conditions to maximize healthy watershed benefits.

Mitigation: Because there is a high social dependence upon many routes that degrade the aquatic environment (some of which are important fisheries) that are **not** changed through this planning (e.g., roads such as the Phantom Canyon road), the remaining impacted streams should be mitigated to minimize resource damage. To accomplish this it is recommended that the mitigation measures presented in the Floodplain/Riparian section be implemented for the selected alternative.

Name of specialist: David Gilbert

WILDLIFE, TERRESTRIAL (includes information related to Standard 3)

Affected Environment:

Introduction: The planning area consists of a variety of habitat types. The habitat type descriptions are taken from the *Partners in Flight, Colorado Land Bird Conservation Plan* and are for the Southern Rocky Mountain Physiographic Region. Information for some species, particularly ungulates, is from DOW. The Natural Diversity Information System (NDIS) was also used in describing the existing environment.

The habitat classification used for this effort is described in the *Colorado Land Bird Conservation Plan*. It identifies 13 vegetation-based categories (alpine tundra, aspen, grassland, high-elevation riparian, lowland riparian, mixed conifer, mountain shrubland, pinyon-juniper, ponderosa pine, sagebrush shrubland, semidesert shrubland, spruce-fir, and wetlands). Of these 13 categories, 9 (alpine tundra, aspen, grassland, high-elevation riparian, mixed conifer, mountain shrubland, pinyon-juniper, ponderosa pine, and spruce-fir) will be described (see [Appendix 13](#) and [Map 13](#) for locations). The others either do not occur in this portion of Colorado (sagebrush shrubland, semidesert shrubland), only occur in very small amounts and do not warrant discussion in this effort (lowland riparian), or are covered in the Floodplain/Riparian section.

The topography in the planning area is rugged and ranges in elevation from 5,000 feet to 10,500 feet. Annual precipitation varies from 10-20 inches, much of it occurring as snowfall during the winter months. Local precipitation is heavily influenced by elevation. Elevation and exposure, and their effects on soil moisture, also strongly influence plant communities. Understory vegetation is sparse in most forest types except for aspen. Forests in the planning area may be more naturally fragmented than most other forest types in Colorado due to the weather, topography and the effects of other forces such as fire, insects, and disease. The resulting landscape pattern is a complex mosaic of open meadows and forest stands of varying age and species composition. The primary large-scale disturbance agents are fire and insect outbreaks. Habitats are also fragmented due to the large numbers of people that live in the area and roads, subdivisions, towns and other infrastructure.

Habitat types found in the planning area are shown in Table 9. Descriptions of the habitat types are located in the [Appendix 13](#). The extreme northern portion of the planning area was not evaluated for habitat/vegetation because the vegetation mapping is not complete for that area. Approximately 64,000 acres fall within this category. There is very little Public Land and no route segments identified for the area. Two sources of data were used to generate figures for habitat types in the planning area. Landsat Vegetation Classification (DOW/BLM) was used for upland vegetation. This data is derived from 30 meter pixel resolution taken from satellite imagery. This classification is excellent for upland vegetation types

that cover large areas but less accurate for classifying riparian vegetation due to the small areas of riparian that occur in the planning area. The riparian vegetation was classified using National Aerial Photography Program color-infrared aerial photography and riparian polygons were mapped at 1:24,000 scale. (see the Floodplain/Riparian section for additional details)

Table 9. Estimated Acres of Habitat Types in the planning area

Type	Acres in Planning Area	% of Planning Area	Acres on Public Lands	% on Public Lands*
Riparian	25,000	5	3,000	12
Grassland	104,000	20	11,000	11
Mountain Shrub	59,000	12	12,000	20
Pinyon/Juniper	106,000	21	49,000	46
Mixed Conifer	19,000	4	5,000	26
Ponderosa Pine	129,000	25	38,000	29
Aspen	13,000	3	2,000	15
Spruce Fir	51,000	10	18,300	36
Alpine	2,000	0.4	300	15

* Percent of Acres of Planning Area habitat type (column 2) that occurs on Public Lands

The following species or groupings are commonly found in the planning area: bighorn sheep, elk, mule deer, black bear, mountain lion, raptors, Merriam's turkey, and birds. Detailed descriptions of these species, their habitats and occurrences in the planning area can be found in [Appendix 13](#) and [Appendix 14](#). ([Map 13](#))

Environmental Consequences

Introduction: Terrestrial wildlife impacts pertaining to Gold Belt TMP alternatives were analyzed according to the BLM Royal Gorge RMP, the *Standards for Public Land Health in Colorado* as approved by the Secretary of Interior, February 1997, and BLM recreation guidelines as they relate to the maintenance of healthy plant and animals communities. The Standards describe natural resource conditions that are needed to sustain public land health and underscore decision-making and evaluation of all multiple uses of the public lands, including recreational travel.

The Standards pertinent to impact assessment of Gold Belt TMP alternatives on terrestrial wildlife include those related to riparian systems; plant and animal communities; and special, threatened, and endangered species. Standard 3 directs BLM to “Protect wildlife habitat by preserving connectivity and avoiding fragmentation” and reads:

Healthy, productive plant and animal communities of native and other

desirable species are maintained at viable population levels commensurate with the species and habitat potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes. Landscapes exhibit connectivity of habitat or presence of corridors to prevent habitat fragmentation.

Standard 3 provides direction for BLM to manage species, populations, and wildlife habitat on both a local and landscape level to assure that habitat and habitat connectivity are maintained and enhanced and habitat fragmentation is avoided.

Most of the TMP area is meeting the Standard for Public Land Health for plant and animal diversity. A few isolated areas are not meeting this Standard, due primarily to the proliferation of travel routes and the increases in use on those routes. All of the alternatives would either meet or make slight improvements to the situation with this Standard. The overall change would be minimal within the entire TMP area under any of the alternatives.

Terrestrial Wildlife Impacts: Impacts to wildlife species from roads and trails are variable, species-specific, and co-dependant on such factors as traffic volume, season of use, vegetative cover on travel routes, and frequency of human-wildlife interaction, among other variables. Typically, impacts to wildlife from roads and trails with low traffic aren't as great as those from high-traffic, intensively developed areas where large areas of habitat are altered. Wildlife impacts, however, do occur in lower traffic, backcountry areas on public lands. Even passive recreation such as hiking, horseback riding, running, jogging and biking can affect wildlife and wildlife habitat in a variety of ways, both short and long term. More significant impacts, however, are associated with motorized OHV use as impacts to vegetation are greater and disturbances to animals themselves are more likely.

Impacts can be defined as direct and indirect. Direct impacts are those that result from close encounters with wildlife and cause a flight reaction. The reaction is a function of the species, closeness, type and intensity of the encounter, time of day, time of year, type of habitat, vegetation screening, trail location, surrounding land use, and many other variables. Wildlife characteristics, including type of animal, group size, age and sex, also determine the response to a disturbance. Disturbance by humans can cause nest abandonment, decline in parental care, increased stress, shortened feeding times, and potentially lower reproductive success. Motorized use may result in collisions with animals resulting in injury or death.

Indirect impacts are defined as impacts to habitat that do not directly impact the animal itself. The construction and use of a road or trail results in a level of loss of habitat as vegetation is removed. The greater the road density in an area, the

greater the direct impact on vegetation and thus the greater the potential indirect impact on individuals and populations. Proliferation of roads and trails across the landscape, through time, adds to the cumulative impacts to habitat.

The existence of a road or trail can change the characteristic of wildlife habitat. When a road or trail is created, increased light encourages new growth of vegetation, creating habitat edge which results in a shift in the composition of wildlife species. Habitat generalists (species that utilize a variety of habitats) increase while interior or obligate species (species that depend on one type of habitat) decline. Predation may also increase and in general biological diversity declines. Indirect impacts also occur as wildlife avoid habitat along roads to reduce their exposure to negative stimulus associated with human uses. While the habitat may provide for the needs of the species, it is not being utilized because of its nearness to a road or trail.

Another form of indirect impact is the fragmentation of habitat that occurs with increasing roads and trails. Wildlife thrives best in larger blocks of undisturbed habitat rather than smaller fragmented pieces. Habitat fragmentation is considered to be the greatest threat to biological diversity. Determining when a road or trail causes habitat fragmentation and how it contributes to a reduction in biological diversity is extremely difficult. Nevertheless, protecting large, undisturbed areas of wildlife habitat was considered when decisions were made concerning travel management in the Gold Belt planning area.

Preventing fragmentation of habitats also contributes to the maintenance of wildlife movement corridors. Wildlife movement corridors are defined as linear habitat whose primary function is to connect two or more significant habitat areas. Corridor use is influenced by topography, vegetation, species of interest, and nearby human activities. A wildlife corridor should serve to provide for several functions such as providing wide-ranging animals an opportunity to travel, migrate and meet mates; allowing plants to propagate; providing for genetic interchange; allowing for populations to move in response to environmental changes; and allowing for individuals to re-colonize habitats. Corridors are needed to maintain connectivity among formally contiguous habitats.

Landscape-level Trends: Population growth experienced over the last 20 years, along with the increasing extent of private land subdivision and residential development in Fremont, Park, and Teller counties, have dramatically altered the state of remaining wildlife habitat in the Gold Belt planning area. The Gold Belt planning area is dissected by a matrix of public lands and private lands, the latter formally working ranches. Historically, private ranches provided a level of core-interior, low-traffic wildlife habitat.

In recent years many of these ranches have been sold to developers and converted to subdivisions that include roads, home sites and other support facilities. As homes are built and people move into former open space, wildlife are being

displaced and forced to move from traditional ranges. One result is that the Public Lands are an increasingly critical source of land for providing core, undisturbed habitat for all species, as well as the connectivity of habitats that is so important to many wildlife species. Appendix 11, [Table 1](#) details the level of importance of Public Lands for maintaining core wildlife habitat and large blocks of contiguous open space within the planning area.

Currently, approximately 40 % of the landscape within the Gold Belt planning area is considered core habitat; unaffected by roads, trails, and human traffic (Appendix 11, [Table 1](#)). Conversely, approximately 60 % of all lands within the planning area are impacted by routes and traffic. In contrast, under this same measurement, less than 30 % of BLM lands are impacted by routes, trails and human traffic, leaving more than 70 % of the Public Lands within the planning area as core habitat.

Furthermore, the only large blocks of core habitat areas (greater than 5,000 acres) left in the planning area are those that occur on Public Lands such as the Beaver Creek WSA, Cooper Mountain, Gribble Mountain, and the Upper Fourmile area near Booger Red Hill. In compliance with Public Lands Health Standard 3, BLM managers seek to ensure that these areas remain viable as suitable habitat. In order to do that, decisions must be made during travel management planning so that the ability of Public Lands to continue to provide habitat is not compromised.

Terrestrial Wildlife Impact Analysis: The BLM analyzed terrestrial wildlife impacts under four travel scenarios: current travel management, low use, moderate use, and high use, as developed by the Interdisciplinary Team and in response to public input. BLM route inventory data, derived from GPS mapping and digital Orthophotoquad interpretation, were modeled for traffic-impacts using GIS tools and comparatively assessed in terms of core-undisturbed and traffic-impacted habitat in relation to BLM, DOW, and CNHP wildlife habitat datasets. Analytical products included map overlays and statistical information produced to depict relative habitat fragmentation, traffic-impact areas, and remaining wildlife core areas both within the planning area and among 6th level watersheds.

All routes within the TMP area were initially examined and characterized as to type, width, type of use, and to the current use level. These parameters defined a generalized current impact assessment of a route to individuals, populations, and habitat for a particular species or group of species. For example, route impacts to the more than 200 species of birds that use the planning area, were inferred from route impacts to avian habitat classes as defined by the *Partners in Flight* program. In this way, route impact results could be both assessed from an individual route impact on a particular habitat type, as in the case of impacts to the Mexican spotted owl, upward to the cumulative impact of the route network on a habitat type, such as impacts to bighorn lambing habitat.

Similarly, within the GIS, habitat impact results could be viewed and assessed

across scales such as between watersheds or across the whole landscape. Routes were ranked from high to low impact based on the aforementioned attributes and buffered by four distances to determine areas of habitat that are being impacted from the effective habitat base. The traffic-buffer classes used in this assessment were:

- 165 feet (50 meters) Low impact routes that receive low use, i.e., trails
- 330 feet (100 meters) Moderate impact routes, moderate use, trails and unimproved roads
- 820 feet (250 meters) Moderate motorized use, unimproved routes, high use trails
- 1,335 feet (407 meters) Major improved routes with high use, high use motorized routes

For instance, a foot trail that receives low use was buffered by 165 feet (50 meters) on both sides of the route. Similarly, county roads that receive high use were buffered by 1,335 feet (407 meters or ¼ mile). These analyses were done for all four alternatives. These buffers were developed for local use and conditions referencing previous research. Future traffic and type of use, and thus route wildlife impact, were projected from route designations per travel alternative and traffic-counter data as collected by the Royal Gorge Field Office (See Recreation).

Areas of wildlife habitat inside or outside of these traffic-weighted route buffers were considered to be either impacted by the route network or core wildlife habitat, respectively. These routes are depicted for each alternative in Appendix 11, Maps [9](#), [10](#), [11](#), and [12](#) and show where effective core habitat remains intact. Appendix 11, [Table 1](#) shows a comparison between alternatives and core habitats. When analyzing the data on a landscape level (Gold Belt TMP) the differences between the four alternatives are small. This is due to the scale of observation, the relative state of road density in the planning area, and the relatively minor mileage statistics impacted by BLM travel decisions. Linear mileage of roads and trails in the planning area exceed 8,000 while BLM decisions impact less than 300 miles.

Similarly, at the ecosystem and landscape scale, large areas of habitat that are currently undisturbed will remain undisturbed by roads and trails in the Beaver Creek WSA, the Phantom Canyon ACEC and other extremely rough areas such as Cooper Mountain, Gribble Mountain and the Shelf Road, no matter which alternative is selected. Thus, all alternatives result in several core areas that are greater than 1,000 acres and mean core area sizes greater than 15,600 acres (Appendix 11, [Table 1](#)). There are, however, important differences in alternatives and core habitats for certain sub-units that have the potential to impact wildlife that are clearer at the watershed scale. Impacts to sub-units will be described under each alternative.

The terrestrial wildlife impact analysis compared the four alternatives, the habitat types, and core areas. Appendix 11, [Table 2](#) shows the percentages of each habitat type that remain in core habitat (based on the total acres of that habitat type in the planning area). Appendix 11, [Table 3](#) shows the percentage of BLM habitat that is impacted by routes. As expected, pinyon-juniper habitat is the most affected (31%) because it is the habitat type that is most commonly found on the Public Lands in this area. Again, however, subtle differences are noted between alternatives when examining this data on a landscape level.

Due to the size of the Gold Belt TMP area a large number of wildlife species are involved. To be practical, only a few wildlife species can be addressed in detail. The assumption has been made that protection of core habitats will provide for all the species that occupy those habitats. Key species for each habitat were previously described (see [Appendix 14](#)). Protection of core areas is expected to confer benefits on the greatest number of species and includes species that have the greatest need for contiguous habitats and effective corridors.

Data for individual species is found in Appendix 11, Tables [4-1](#), [4-2](#), [4-3](#), [4-4](#), [4-5](#), [4-6](#), [4-7](#), and [4-8](#). These tables show the amount of acres of core BLM habitat for each species, the acres of traffic impacted habitat, and the percentage of traffic impacted habitat.

Proposed Action: The Proposed Action provides for the protection of ecosystems to restore, maintain and improve public land health. It also provides a moderate level of motorized access and recreational travel opportunities when compared to the Low Use, High Use, and Current Use Alternatives. The Proposed Action applies travel management planning on a landscape level with a balance between recreation travel benefits, ecosystem maintenance, and Public Land health as measured by the condition of soils, watersheds, riparian and wetlands, and plant and animal communities. The Proposed Action minimizes the impacts to terrestrial wildlife by increasing core wildlife habitat by an estimated 2,500 acres over current management.

The Proposed Action reduces road and trail densities and habitat impacts in the Gulches, Seep Springs Draw, and Garden Park subunits. This alternative would maintain an estimated 2,500 acres of core mule deer winter range, 200 acres of core bighorn sheep habitat, 2,600 acres of turkey winter habitat, and 2,400 acres of core mountain lion habitat over current management. The Proposed Action reduces traffic disturbance to riparian and wetland habitat and maintains viable core habitat, notably in the Gulches subunit. The alternative increases core habitat over current management for the majority of terrestrial wildlife evaluated, and channels increasing human traffic flow away from sensitive habitats in the Seeps Springs and Garden Park subunits.

The Proposed Action responds to larger ecosystem issues of fragmentation of wildlife habitat, private land subdivision, increasing regional road densities, loss

of open space, increasing human traffic, and accelerating spread of user created routes on Public Lands. Under the Proposed Action, the number of core wildlife areas greater than 1,000 acres will continue to be in the Beaver Creek WSA, Cooper Mountain, Gribble Mountain, and Mt. Pisgah/Little Pisgah subunits of the planning area, with the mean size of the 10 largest areas remaining at just under 16,000 acres. The Proposed Action benefits the wildlife resource by allowing for recreation use in areas that least affect terrestrial habitat.

Current Use Alternative: This alternative represents the “No Action” alternative. Under this alternative, recreational travel is limited to existing routes that will remain available for use unless posted closed. This alternative does not address the increased use on the planning area’s routes by recreational traffic and corresponding impacts to wildlife populations by encroachment of human traffic in formerly undisturbed patches of habitat. Under this alternative, BLM forecasts traffic increases and reduction of core mule deer winter range particularly in the pinyon-juniper and riparian habitats in the Gulches sub-unit west of the Shelf Road Climbing Area but also the grassland and pinyon-juniper habitats in the Penrose Commons sub-unit. Mule deer habitat impacts in South Cedar, Cedar, and Espinoza Gulches will be compounded by increasing residential development in mule deer winter range in the Garden Park, High Park Ranch, and Guffey areas.

In the Current Use Alternative, traffic impacts will also continue to increase in the Seep Springs and Garden Park sub-units, the latter previously designated as an ACEC. Under the Current Use Alternative the number of core wildlife areas greater than 1,000 acres will continue to be in the Beaver Creek WSA, Cooper Mountain, Gribble Mountain, and Mt. Pisgah/Little Pisgah sub-units, with the mean size of the 10 largest areas at 16,300 acres.

Low Use Alternative: This alternative provides for a relatively low level of motorized access and travel opportunities in comparison to current management but emphasizes the protection of ecosystems to restore, maintain and improve public land health. The Low Use Alternative minimizes the impacts to terrestrial wildlife by increasing core wildlife habitat by an estimated 6,000 acres over current management (Appendix 11, [Table 1](#)). Sensitive habitats that BLM manages, including those identified by the Colorado Natural Heritage Program, are maintained or improved over current management while critical wildlife habitat, including big game, carnivore, and bird habitat as identified by DOW receives the greatest protection.

Of note, the Low Use Alternative would expand core mule deer winter range by an estimated 5,000 acres, overall core elk habitat by an estimated 1,200 acres, core turkey winter habitat by 4,900 acres, core black bear habitat by 1,000 acres, and core mountain lion habitat by an estimated 5,500 acres. Wildlife habitat for birds, big game, and large carnivores would experience the greatest improvement in the pinyon-juniper and riparian habitat in the Gulches sub-unit and in the

grassland and pinyon-juniper habitats in the Penrose Commons sub-unit. The number of core areas greater than 1,000 acres falls to 42 in this alternative but the size of core areas (mean core area size of 10 largest core areas) increases to 17,700 acres (Appendix 11, [Table 1](#)). These fewer and larger core areas translate into less fragmentation and more benefits for wildlife. The Low Use Alternative would leave 76.6 % of the Public Lands in core wildlife habitat. It also reduces the total percentage of traffic-impacted Public Land habitat to 23.4 %.

High Use Alternative: This alternative analyzes the effects of implementing recreational travel designations that provide a high level of motorized access and recreational use. This alternative allows for increased recreational travel, with an emphasis on recreational benefits, opportunities, and access by providing high levels of hiking, biking, equestrian, and OHV travel for the public. The High Use Alternative results in higher environmental impacts to Public Land health as measured by the cumulative travel-related impacts to soils, watersheds, riparian and wetlands, and plant and animal communities. The High Use Alternative would reduce core terrestrial wildlife habitat in the planning area by an estimated 2,400 acres and would worsen larger ecosystem issues of fragmentation of wildlife habitat, increasing road densities, and loss of open space currently prevalent in the Gold Belt planning area.

Although the High Use Alternative allows for more recreation use over a much larger area, the detrimental impacts occurring under current management (uncontrolled growth and route proliferation) are eliminated. The BLM estimates that the High Use Alternative would reduce core mule deer winter range by 2,300 acres, core bighorn sheep overall habitat by 600 acres, core elk habitat by 1,100 acres, and core mountain lion habitat by 2,400 acres. Under the High Use Alternative, the number of core wildlife areas greater than 1,000 acres will continue to be in the Beaver Creek WS, and the Cooper Mountain, Gribble Mountain, and Mt. Pisgah/Little Pisgah subunits, with the mean size of the 10 largest areas remaining at an estimated 15,500 acres (Appendix 11, [Table 1](#)).

Name of specialist: Erik Brekke

NON-CRITICAL ELEMENTS

FOREST MANAGEMENT

Affected Environment: In the past 25 years some harvest of both firewood and sawlogs have occurred within the planning area. Due to a depressed market for both products and reduced demand, the BLM has not conducted any harvest operations within the planning

area in the past two years and no active sales exist currently.

Environmental Consequences & Mitigation:

Consequences Common to All Alternatives: Harvest of forest products within the planning area would utilize some of the roads available under all alternatives. Standard stipulations are included in all contracts that require operators to maintain roads used by them in a condition at least as good as when they began operations. All access is stipulated by contract as well. Variances from contract access language can be obtained by written request but the same maintenance stipulations are required.

Some harvest operations might include the need for new road construction. Construction is completed in accord with standard construction stipulations and inspection. All constructed roads will be obstructed and closed unless the BLM specifically desires them to be included in the agency transportation plan. Additional mitigation specific to forestry operations are considered unnecessary.

Name of specialist: Mike Gaylord

GEOLOGY AND MINERALS

Affected Environment: The Gold Belt TMP planning area lies within an area of important geologic interest. The planning area is underlain by very old Precambrian rocks, with the oldest dated at 1.75 billion years old and with other Precambrian units dated at 1.4 billion and 1 billion years, respectively. The western portions of the planning area are dominated by volcanic formations resulting from eruptions in the Thirty-nine Mile volcanic field, occurring about 37 to 34 million years ago. There is a large sequence of sedimentary rock layers on the southern end of the planning area that include rock formations from the Ordovician through recent time periods.

The discovery of gold in 1878 by Bob Womack eventually led to the Pikes Peak gold rush and the establishment of the Cripple Creek Mining District in 1891. Unlike many other gold deposits in the United States, the Cripple Creek District did not contain significant amounts of placer deposits (loose gold concentrated in stream gravels), due to (1) the lack of flowing streams to deeply erode the lode deposits into placer deposits and (2) the fine-grained nature of the gold mineralization, that did not concentrate well in the base of stream beds. This forced prospectors to use more labor-intensive techniques of tunneling deep into the ground to locate the high-grade gold-bearing deposits. Although mining within the planning area originally focused on the extraction of precious metals, most of the mining activity today is for industrial material, such as sand, gravel, clay, and limestone. The largest of the modern day gold mines still in operation is the Cripple Creek & Victor Gold Mining Company mine, located near Victor.

During the heyday of the gold mining activity, many roads were developed to support the

transportation needs for the mining towns and hundreds of mines that operated in the Cripple Creek District. Railroads were constructed and numerous wagon roads and truck roads were built, including the railroad along Eightmile Creek (Phantom Canyon) and the wagon road along Fourmile and Cripple Creeks (Shelf Road). Many of these roads are still in use today, while others have been abandoned.

Environmental Consequences & Mitigation:

Consequences Common to All Alternatives: None of the alternatives would appreciably affect mineral exploration and mining activities. In instances where access is needed for mining purposes but not available via the designated travel routes, new routes to mining locations could possibly be built under the authority of locatable, leasable, or saleable mineral regulations, provided that appropriate levels of environmental analysis are conducted. Recreational gold panning does not occur in the planning area due to the lack of known placer deposits. Rock hounding would only be slightly impacted by the closure of some roads to motorized use.

The Penrose Moss Rock area, located in the Penrose sub-unit, is a permitted rock collecting area where individuals and families can collect rock for landscaping type projects. The area is designated for personal use and is not set up for commercial collecting. Individuals with permits can collect moss rock using equipment such as wheel barrows, four wheelers, up to one ton pickups, and small trailers. The types of equipment that are not authorized include: skid loaders, bob cats, backhoes, dump trucks, and loaders. Authorized types of vehicles can be taken off road if a valid permit has been issued. These permits include mitigation and are designed to minimize off road damage. None of the action alternatives would preclude off-road travel for permitted rock collecting.

Current Use Alternative: Because motorized travel uses on existing routes would not be changed, the Current Use Alternative would not affect prospecting and mining activities.

Proposed Action: The Proposed Action would result in fewer motorized access routes because of closure of selected routes. Overall, there would continue to be a large number of access routes available for geological and mineral investigations.

Low Use Alternative: This alternative would provide the fewest available access routes of the action alternatives but would not substantially affect the ability to explore for minerals. The Low Use Alternative would result in less motorized access within the planning area because of the closure of some access routes but sufficient motorized access would be available for geological and mineral investigations.

High Use Alternative: The High Use Alternative would provide the highest number of available access routes within the planning area but would not substantially enhance mineral exploration. Overall, there would continue to be a

high number of access routes available for geological and mineral investigations. This alternative provides more available access routes than the other alternatives but this would not make a major difference in the ability to authorize mineral development.

Name of specialist: Dan Grenard

LAND STATUS/REALTY AUTHORIZATIONS/ACCESS

Affected Environment:

Land Status: The sizes of the Public Land parcels in the Gold Belt TMP area vary tremendously. In the area surrounding the historic mining towns of Cripple Creek and Victor, much of the BLM ownership consists of very small, isolated, and irregular-shaped tracts; a large percent of these are smaller than an acre. Many are left-over, unsurveyed remnants of original Public Domain lands that remained after the issuance of numerous intermingled mining claim patents at the turn of the century. Throughout the planning area there are also numerous small, isolated “aliquot part” parcels ranging from 40 acres to several hundred acres. BLM has no legal or prescriptive access rights too many of these lands. At the other end of the scale are the large, contiguous “blocks” of public land covering multiple square miles and containing thousands of acres. In general, access to these parcels is provided by the State, Federal, and county road systems. The major exceptions to this are two parcels located adjacent to Canon City. There are approximately 1,700 acres on Sixmile Ridge east of Canon City that are totally surrounded by private land; there is no legal access to this parcel. The Twin Mountain parcel to the west contains approximately 8,000 acres; it has no vehicular access and foot and horseback access is extremely difficult due to the steep mountainous terrain.

The Royal Gorge RMP identified three land tenure categories. Category I lands are those identified for disposal by any means, Category II lands are retention lands, and Category III lands those identified for disposal by exchange only. Due to the lack of legal access, the small isolated parcels of public land scattered throughout the planning area are considered to be too uneconomical to manage and were identified for disposal under either Category I or III. The large, contiguous “blocks” of public and were identified for retention under Category II.

There is an extensive real estate market for rural lands along the Colorado Front Range, including BLM’s isolated parcels identified for disposal in Categories I and III. As a result, the Royal Gorge Field Office has had a very active land exchange program. This program has enabled the Field Office to dispose of lands that are difficult to manage and to acquire, from willing sellers, privately owned inholdings located within the retention areas. This has resulted in reducing land ownership conflicts and improving BLM administered land patterns and management potential. In addition, these changes in land ownership improve travel opportunities by creating

new access and providing connections to existing Public Lands that had not previously existed. Because of the potential impacts resulting from these new opportunities the existing road systems on the acquired lands must first be analyzed through the NEPA process before being opened for public use.

Realty Authorizations: BLM land use authorizations in the area consist totally of rights-of-way. The uses authorized include roads and highways, utility lines for both electrical and telephone service, fiber optic lines, communication sites, water pipelines, and irrigation ditch facilities.

Road rights-of-way include authorizations for four-wheel drive “two-track” roads that provide access to electrical transmission lines, small single-lane “driveways” for individual land owners, more highly developed double-lane access roads for subdivisions, and the Federal, state and county road systems.

Power line rights-of-way range from authorizations for small kilovolt service lines for single or multiple residences; to large kilovolt double wood-pole transmission lines, to the very large steel structured WAPA transmission facility constructed through the middle of the planning area. Telephone and fiber optic rights-of-way include both aerial and buried systems.

The single communication site authorized in the area is the Twin Mountain facility west of Canon City. BLM has granted four separate rights-of-way to the various users of this site.

Access: Primary vehicular access to Public Land in the planning area is provided by the Federal, State, and county road systems. Secondary vehicular access is provided by BLM’s road system and the various road rights-of-way granted to private entities. A small number of public access easements have also been acquired across private land in the planning area.

As stated in the Land Status section, there are numerous parcels of public land in the planning area, large and small, that have no legal public access, and there are many areas where access is restricted due to extreme terrain and isolation by private lands.

Environmental Consequences & Mitigation:

Current Use Alternative: Under the Current Use Alternative there would be no impact on Land Status, Realty Authorizations, or Access. The uses of existing travel routes would not be affected by this alternative. The uses authorized under existing right-of-way grants will not be affected by this alternative. No new public easements across private lands, that would provide access to Public Lands that currently do not have legal access, are proposed in this alternative.

Proposed Action: Under the Proposed Action there would be no impact to Land Status, Realty Authorizations, or Access. Some travel uses of existing routes would be changed under this alternative, affecting the type of access in some

areas (i.e., motorized, non-motorized, or mechanized). The proposed closure of existing motorized routes from private lands would substantially impact adjacent landowners who have previously accessed Public Lands with motor vehicles. The uses authorized under existing right-of-way grants will not be affected by this alternative. No new public easements across private lands, that would provide access to Public Lands that currently do not have legal access, are proposed in this alternative. Several proposed new travel routes, however, are dependent upon the acquisition of private lands in on-going land exchanges that were initiated before the start of this travel management plan.

Low Use Alternative: Under the Low Use Alternative there would be no impact to Land Status, Realty Authorizations, or Access. Some travel uses of existing routes would be changed under this alternative, affecting the type of access in some areas (i.e., motorized, non-motorized, or mechanized). The proposed closure of existing motorized routes from private lands would substantially impact adjacent landowners who have previously accessed Public Lands with motor vehicles. The uses authorized under existing right-of-way grants will not be affected by this alternative. No new easements are proposed that would affect access to Public Lands that currently have no legal public access

High Use Alternative: Under the High Use Alternative there would be no impact to Land Status, Realty Authorizations, or Access. Some travel uses of existing routes would be changed under this alternative, affecting the type of access in some areas (i.e., motorized, non-motorized, or mechanized). Under the High Use Alternative only a few existing motorized routes from private lands would be closed. These proposed closures would impact the adjacent landowners who have previously accessed Public Lands with motor vehicles. The uses authorized under existing right-of-way grants will not be affected by this alternative. No new public easements across private lands, that would provide access to Public Lands that currently do not have legal access, are proposed in this alternative. Several proposed new travel routes, however, are dependent upon the acquisition of private lands in on-going land exchanges that were initiated before the start of this travel management plan.

Name of specialist: Lindell Greer

NOISE

Affected Environment: Noise levels vary greatly throughout the planning area. A large variety of activities influence the presence and amount of noise. The largest influence on noise levels comes from vehicles on area roads, with other noise sources including industrial activity, farming and ranching activity, recreational target shooting, mining, aircraft overflights, and activities related to use of residential areas. Many areas within the planning area are, however, relatively quiet. The preponderance of these quiet areas is found on Public Lands.

Noise levels on Public Lands vary as much as in the planning area as a whole. Public Lands are more influenced by the noise from vehicles on roads than other sources. Planning area sub-units on Public Lands with low levels of noise include Beaver Creek, Cooper Mountain, Mt. Pisgah/Little Pisgah, Twin Mountain, and Gribble Mountain. Planning area sub-units on Public Lands with higher levels of noise include Seep Springs, Garden Park, Penrose Commons and Deferred Analysis area.

The sources of noise on Public Lands are highly variable but tend to be dominated by motorized vehicles. This can vary from many cars and large trucks on paved roads to the occasional transit of a motorcycle on an isolated primitive road. The planning area sub-units identified above as having the higher noise levels are also those with the densest patterns of roads and trails used by motorized vehicles. Noise in some of the sub-units can be muted by the surrounding vegetation and topography.

An additional source of noise in some of the sub-units comes from target shooting. In much of the planning area, target shooting is an isolated, intermittent, and legal activity. In some sub-units, like Garden Park and Penrose Commons, the amount of target shooting has increased sharply. In these sub-units, noise levels can abruptly increase as target shooters use the area. BLM has attempted to control the location of concentrated target shooting and this has increased noise levels in these areas (the Dinosaur Flats and Oil Well Flats portions of the Garden Park sub-unit).

BLM has very little ability to change the noise patterns on the non-federal lands in the planning area. The noise on and from these non-federal lands can also be expected to increase as new subdivisions are created and as traffic on the major Federal, state and local roads increases. These increases are fueled primarily by increasing rural residential development and recreational uses.

Currently, visitors to the Public Lands in the planning area can find a variety of destinations to go to that vary with the amount of noise that may or may not affect their recreational experience. Those seeking peace and quiet with a low level of noise can find it in sub-units like Beaver Creek. Those who can tolerate higher levels of noise can utilize sub-units like Penrose Commons or Garden Park. There are numerous sub-units that provide a range of noise levels between these extremes.

Environmental Consequences/Mitigation:

Current Use Alternative: Noise levels under this alternative will change in a variety of ways. In a few areas, noise levels will go down as illegally created roads are closed. In most areas, however, noise levels will increase, varying from slight increases in some areas (the less roaded sub-units) to major increases in others (such as the Penrose Commons, Garden Park, The Gulches, and Seep Springs sub-units). Though some increases in noise levels will come from increasing development on adjacent private lands, most of the increases on Public Lands will come from recreational motorized vehicle use. Overall, under this alternative, noise levels will experience a slow but gradual increase throughout

the planning area. A variety of noise levels will still be able to be found in the planning area, as not all sub-units will experience the same levels and types of increases in noise.

Under this alternative, concentrated target shooting would continue in the Garden Park and Penrose Commons sub-units and noise levels from this source would continue to slowly increase over time. The levels of noise from target shooting in the remainder of the planning area would generally remain the same but could experience slight increases from increased levels of recreational use in some areas.

Proposed Action: Under the Proposed Action, noise levels can be expected to increase in some of the sub-units, while decreasing in other sub-units. Lower levels of noise are anticipated in areas where roads are closed or are converted from motorized to non-motorized use.

Sharp decreases in noise levels resulting from decreased amounts of motorized vehicle use would be found in the following subunits: The Gulches, Shelf Road Climbing Area, and Booger Red. A major increase in noise levels would occur in the Penrose Commons sub-unit. The remaining sub-units would generally retain current noise levels, with some road closures offset by overall increases in use levels.

Overall, the proposed closure of certain roads will result in decreased noise levels in the immediate geographic vicinity of the closed road. Conversely, those roads that remain open or the new routes will lead to increases in noise levels in the surrounding areas. In the planning area as a whole, there will be an increase in the number and size of areas where low levels of noise are found, as well as some localized areas where noise levels will increase.

Under the Proposed Action, the amount of noise from concentrated target shooting areas will decrease, with the closure of the Garden Park and Penrose Commons sub-units to target shooting. The decrease will be gradual, depending on the speed of finding an alternative shooting area to replace the one in the Dinosaur Flats portion of the Garden Park sub-unit. Noise from dispersed target shooting may increase in those sub-units nearest Canon City and Penrose, as shooters look for other suitable places to practice their sport.

Low Use Alternative: Under the Low Use Alternative, noise levels are expected to decrease in the planning area but only a small amount under that described for the Proposed Action. The decrease would be slight in areas that are currently relatively quiet, and sharply in those sub-units with the largest amount of road closures. Under this alternative, noise levels in the Garden Park, Booger Red, The Gulches, Seep Springs, and the Shelf Road Climbing Area would drop sharply. Noise levels in the Penrose Commons sub-unit would drop moderately. The overall increase in visitors would probably result in a low to moderate

increase in noise levels on those Public Land roads that remain open and on adjacent Federal, state, and local roads. This would be caused by users of motorized vehicles shifting their use to those roads that remain open.

Under the Low Use Alternative, concentrated shooting would remain generally the same as under the Current Use Alternative. This would result in high noise levels in the Garden Park and Penrose Commons sub-units and noise levels from this source would continue to slowly increase over time. The levels of noise from target shooting in the remainder of the planning area would generally remain the same but could experience slight increases from increased levels of recreational use in some areas.

High Use Alternative: Under the High Use Alternative, noise levels are expected to rise in the planning area but only a small amount over that described for the Proposed Action. This increase would be slight in areas that are currently relatively quiet, and sharply in those sub-units that currently receive a moderate to high amount of motorized use. This increase in noise levels will come from the continuation of use on some routes, the addition of new routes in certain areas, and the overall increase in use throughout the planning area. Sub-units like Penrose Commons, Seep Springs, and The Gulches could see low to moderate increases in noise levels. The overall increase in visitors would probably result in low to moderate increases in noise levels on those Public Land roads that remain open and on adjacent Federal, state and local roads. This increase is mostly based on the greater availability of motorized routes on Public Lands than under the Proposed Action.

Under the High Use Alternative, there would be a marked improvement in lowered noise levels resulting from the closure of all the concentrated target shooting areas. Some of the users will undoubtedly look to other nearby Public Lands for practicing their sport but this will be in the form of dispersed target shooting and the impacts to noise will be more spread out and intermittent.

Mitigation: The following mitigation would apply to all alternatives.

1. Implement public information/education effort to encourage controlling noise levels while recreating on Public Lands.
2. Enforce state noise level standards pertaining to the operation of motor vehicles.

Name of specialist: Pete Zwaneveld

RANGE MANAGEMENT

Affected Environment: The Gold Belt planning area includes approximately 85 domestic livestock grazing allotments that cover most of Public Lands in the planning area. This acreage includes most of the area contained in the Gold Belt planning area. BLM grazing permits authorize specific ranchers, or permittees, to utilize these allotments for domestic livestock grazing. These permits specify livestock numbers and

the periods of authorized grazing use for each allotment. Grazing use on Public Land is managed to comply with the *Guidelines for Livestock Grazing* in Colorado and help achieve *Standards for Public Land Health*.

Over the years, numerous range improvements (fences, springs, stock ponds, etc.) have been authorized and constructed on many of the grazing allotments in the planning area. Maintenance of these improvements is normally assigned to the individual grazing permittee on each allotment. Permittees are also responsible for checking their livestock and ensuring that they are in compliance with the dates, times and locations specified in individual grazing permits. This requires that permittees utilize many of the roads and trails within each allotment by foot, horseback or vehicle. Except where it is prohibited in special areas, such as the Beaver Creek WSA, BLM has historically allowed grazing permittees vehicular access for performing administrative work on the allotments (i.e., maintenance responsibilities or management requirements). BLM has also traditionally permitted occasional vehicle use off roads as part of the administrative use of grazing allotments. In some cases, grazing permittees and the public share the use of many of the existing roads and trails on the allotments. On some allotments, many of the roads and trails utilized by the permittee are only accessible by crossing private land and thus are not available for use by the general public.

During the preliminary phases of the travel management plan, BLM staff surveyed current grazing permittees to identify the routes utilized in livestock operations. It became apparent that it was difficult to accurately predict how often or for what purposes routes were needed for management activities. For example, it is impossible to predict when and where a fence may need to be repaired or where cattle may unintentionally drift. Consequently, various routes may be used weekly, monthly, annually or on an infrequent basis.

In most cases, the limited amount of use made by individual grazing permittees or BLM staff is not sufficient to cause substantial impacts to Public Lands. There may be cases, however, where specific roads that are needed for range management purposes are causing or contributing to erosion or other problems. Although such roads are used only occasionally by the permittee, their slope, location or design may be causing problems that need to be corrected.

Environmental Consequences:

Consequences Common to All Alternatives: None of the alternatives would affect access or uses of existing roads and trails for administering grazing operations. Authorized holders of grazing permits would still be allowed to drive on existing roads for the purpose of managing their grazing operations under all of the alternatives. A number of the routes utilized in range management activities are included in the “Non-system” category under each of the alternatives. The Non-system category includes routes that are closed to motorized use by the public but that may be used by authorized persons for administrative purposes. BLM grazing permittees will continue to be allowed

vehicular use on Non-system roads needed for managing their operations. Occasional off road vehicle use will also be permitted for administrative purposes only and where such use does not result in undo resource damage. Vehicle use by permittees of BLM non-system roads for purposes other than official administrative duties will not be authorized. Permittees will only be allowed vehicle use on non-system roads on allotments where they hold a valid BLM grazing authorization.

The use of Public Lands for grazing does not preclude other uses from occurring on these same parcels, such as hunting, target shooting, hiking, horseback riding, etc. BLM regulations prohibit anyone, including grazing lessees or permittees, from interfering with lawful uses or users of Public Land, including obstructing free transit by force, threat, intimidation, signs, barriers or locked gates. Other uses, however, sometimes have negative impacts on livestock and grazing operations when gates are not closed, fences are cut, or when livestock are disturbed by high levels of activity. Likewise, the presence of livestock sometimes results in conflicts with other recreational uses. As a general rule, areas that are readily accessible to the public and that receive high levels of recreational use usually result in increased conflicts and have greater impacts on livestock and grazing than areas with limited access and low levels of recreational use. As a result of projected population growth in the region and increased recreation use on Public Lands, the level of conflict with other uses and impacts on livestock and grazing are expected to increase in the future under all of the alternatives.

Current Use Alternative: The Current Use Alternative includes 195 miles of existing travel routes that would be available to the public for all types of recreational uses. Of this total, approximately 163 miles would be open to motorized travel, and only 32 miles would be limited to non-motorized uses. Approximately 190 miles would be managed as Non-system routes and would be available for administrative uses only.

The Current Use Alternative would generally maintain the status quo for grazing and range management. Access and travel for managing permitted grazing operations would not be affected. Conflicts with other uses resulting from grazing and impacts to livestock and grazing operations would gradually increase as recreational uses on Public Lands increase. Those sub-units containing high densities of travel routes and motorized access, such as Penrose Commons, Seep Springs, and Garden Park, would be most affected by conflicts and impacts to grazing caused by higher levels of recreational traffic. The level of conflicts and impacts to grazing in those sub-units that currently experience low levels of motorized use, such as The Gulches and Shelf Road Climbing Area, could increase substantially as recreation uses in these areas increases over time. Conversely, grazing operations in those sub-units that have limited access and low densities of travel routes, such as Booger Red/Hole-in-the-Ground, Bare Hills, Cooper Mountain, Twin Mountain, Gribble Mountain, and Mt. Pisgah/Little

Pisgah, would not be substantially affected.

Proposed Action: The Proposed Action includes 216 miles of designated travel routes that would be available to the public for all types of recreational uses. Of this total, approximately 134 miles would be open to motorized travel and 82 miles would be limited to non-motorized uses. Approximately 208 miles would be managed as Non-system routes and would be available for administrative uses only. The Proposed Action would provide 21 more miles of travel routes for public use than the Current Use Alternative. There would be 29 fewer miles of motorized routes but 50 more miles of non-motorized routes than in the Current Use Alternative. The additional 21 miles includes 11 miles of new ATV and 4WD routes and 10 miles of new foot, horse, and bicycle routes.

Compared to the Current Use Alternative, conflicts with other uses and the impacts to livestock and the management of grazing operations resulting under the Proposed Action would increase in some areas but would improve in others. The Proposed Action would not affect access and the use of routes for managing permitted grazing operations. The construction of approximately 10 miles of new ATV and 4WD routes in the Penrose Commons sub-unit would increase the route density and traffic levels in the area and result in substantially increased impacts to livestock and grazing operations. These impacts include increased difficulty for livestock to utilize the limited livestock water sources (springs, ponds and tanks) currently available in the area. In addition, the establishment of designated foot and horse trails across Cooper Mountain and the construction of the trail connecting the Bare Hills and Booger Red/Hole-in-the-Ground sub-units would improve access and attract increased numbers of recreational users into remote areas that could result in increased disturbance to livestock and potential grazing/recreation conflicts. On the other hand, the impacts to livestock and grazing management would be improved in other areas, such as The Gulches, Garden Park, and Bare Hills sub-units, where existing motorized travel routes would be designated for non-motorized uses, resulting in lower amounts of traffic and disturbing activities.

Low Use Alternative: The Low Use Alternative includes 144 miles of designated travel routes that would be available to the public for all types of recreational uses. Of this total, approximately 96 miles would be open to motorized travel, and 48 miles would be limited to non-motorized uses. Approximately 258 miles would be managed as Non-system routes, and would be available for administrative uses only.

The Low Use Alternative would not affect access and the use of travel routes for managing permitted grazing operations. Because of the relatively low number of routes that would be available to the public for recreational uses, the Low Use Alternative would provide for low levels of traffic that would have the least impacts on livestock and the management of grazing operations of all the alternatives. Under the Low Use Alternative, many existing travel routes

throughout all sub-units of the planning area would be closed to use or limited to non-motorized travel, and no new routes would be constructed that could increase traffic and disturbances to livestock in remote areas.

High Use Alternative: The High Use Alternative includes 248 miles of designated travel routes that would be available to the public for all types of recreational uses. Of this total, approximately 178 miles would be open to motorized travel, and 70 miles would be limited to non-motorized uses. Approximately 178 miles would be managed as Non-system routes, and would be available for administrative uses only.

The High Use Alternative would not affect access and the use of travel routes for managing permitted grazing operations. Due to the relatively high number of routes that would be available to the public for recreational uses, the High Use Alternative would provide high travel route densities and high levels of traffic that would have the most impacts on livestock and the management of grazing operations of all the alternatives. Under the High Use Alternative, most of the existing travel routes and many new routes would be available to the public for motorized uses throughout all sub-units of the planning area, and numerous new routes would be constructed into remote areas that could increase traffic and disturbances to livestock.

Mitigation:

1. Non-system route use and vehicle use off routes for livestock management purposes should be monitored on each allotment as part of BLM's on-going range management program.
2. In areas where specific routes are needed for range management purposes but also may be causing or contributing to erosion or other problems, BLM will address maintenance needs on a case-by-case basis. Actions may include assignment of route maintenance responsibilities to the permittee, BLM maintenance of routes, adjustments in the maintenance or management practices on the allotments, or route closure/rehab.
3. New travel routes established under the Proposed Action and High Use alternatives should be located so as to minimize impacts to existing range improvements or livestock water sources.

Name of specialist: Keith Berger

RECREATION

Affected Environment:

Introduction: Recreational use of the Gold Belt planning area has increased over the last 20 years. In the 1980s the types of recreational uses occurring throughout the Gold Belt area were primarily local visitors participating in hunting, fishing,

hiking, horseback riding, driving for pleasure, rock climbing and target shooting. The number of visitors during the 1980s was relatively low and dispersed throughout the Gold Belt area, with the exception of rock climbing. Rock climbers discovered the “Shelf Road” area in the mid 1980s and use began to grow as word spread. The county roads through Phantom Canyon and Shelf Road were also popular scenic drives with some recreational use occurring adjacent to the county roads.

In the early 1990s recreation on Public Lands increased nationwide. Tourist numbers increased in the region and more visitors from across the country and worldwide began to travel and recreate in areas along the Gold Belt Tour Byway. The number of local residents relying on Public Lands for recreation also increased.

Regionally, several factors contributed toward an increase in tourism and recreational demand in the Gold Belt area. The community of Cripple Creek added limited stakes gaming in 1990, causing a substantial increase in tourism to the Cripple Creek region and surrounding areas. Shortly thereafter, the Cripple Creek and Victor Gold Mining Company expanded and increased the number of jobs. Many of the employees commuted from neighboring communities and increased the amount of use along the county roads that make up the Gold Belt Tour Byway. Fremont and Teller Counties experienced rapid population growth between 1990 and 2000. The Gold Belt Tour Scenic Byway was designated in 1989, focusing attention on this region while trying to preserve the area’s special characteristics. These primary factors contributed toward an increase in the number of people utilizing the roads and recreation areas within the Gold Belt planning area. Some of the more popular areas began to see moderate to high concentrations of visitors in places such as Phantom Canyon, Shelf Road Climbing Area, Garden Park and Penrose Commons areas. User conflicts, resource damage, and increased vandalism became evident in many of these areas.

BLM installed traffic counters in the mid-1980s to determine the number of vehicles entering some of the more popular recreation locations. Table 10 shows the percentage of change in use that has occurred at traffic counter locations over the last nine years.

Many of the existing roads and trails in the planning area were developed over the years for specific projects such as timber sales, gravel pits, or range improvements. Some routes were developed by recreational users. Some of these routes are impacting lands and resources because they were not planned and engineered and never maintained.

Table 10 Traffic Counter Data

Counter Location	Percent Change from 1993 to 2001
Phantom Canyon - FCR 67	-7
Shelf Road – FCR 509B	+22
High Park Road – FCR 11	+68
Beaver Creek – FCR 132	+43
Sand Gulch (Climbing Area)	+21
The Bank (Climbing Area)	+30
Penrose Commons	+14*

* Penrose data from 1999 to 2001 only.

Existing Recreation Planning Guidance: Travel management planning is closely linked to recreation planning and management. There are existing policies and recreation management decisions that help to guide the development of this travel plan. The following provides the framework and parameters for this plan.

Royal Gorge Resource Management Plan: The RMP identifies the travel planning area as the Gold Belt Special Recreation Management Area. Special Recreation Management Areas (SRMA) are Public Lands that are to be managed intensively for recreation. The Royal Gorge RMP directs the management of the area as follows:

A variety of recreational opportunities will be provided and settings will be maintained. Emphasis on maintaining the scenic and historical integrity will be emphasized. Facility development will focus on historical and natural resource interpretation, public health, and other visitor needs and will reduce user conflict.

Gold Belt Tour Scenic Byway Partnership Plan: The Gold Belt Tour was designated as a BLM Back County Byway and State Scenic and Historic Byway in 1989. A 38 member steering committee, formed in 1995, developed a regional byway plan that would provide the vision and goals for management of this special area. In 1997, the Gold Belt Byway Association, a 501.c(3) non-profit association, was formed to provide the oversight and guidance necessary for implementation of the byway plan. The BLM is an ex-officio member of the board of directors of the Gold Belt Byway Association. Due to its outstanding historic, scenic, geological, paleontological, and recreation opportunities the area received a national designation and became the Gold Belt Tour National Scenic Byway in 2000. The Gold Belt Tour Scenic Byway Partnership Plan provides the management direction and goals for this planning area. The goals established for the Byway were incorporated into the Desired Future Conditions (DFC) and objectives for each of the sub-units.

Recreation Opportunity Spectrum (ROS): The RMP identified the ROS classes for the Public Lands in the planning area. The ROS is a framework for separating and defining classes of outdoor recreation opportunity environments. Each class is defined in terms of activity, setting, and experience opportunities. The classes are a tool to assist BLM in planning for recreation management. The recreation opportunities in the Gold Belt TMP planning area currently include about: 4 acres of Urban, 3,510 acres of Rural, 36,454 acres of Roaded Natural, 53,754 acres of Semi-Primitive Motorized, 35,998 acres of Semi-Primitive Non-Motorized, and 8,880 acres of Primitive. See [Appendix 15](#) and [Map 14](#) for locations and definitions of ROS classes.

Standards for Public Land Health and Recreation Guidelines: Recreation planning and implementation must also conform to the Standards for Public Land Health and the accompanying Recreation Management Guidelines. See [Appendix 7](#) and [Appendix 16](#).

Other Guidance: The development of this travel plan should follow the strategy set forth by the BLM's *OHV National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands*, January 2001 and the BLM's *Priorities for Recreation and Visitor Services*, May 2003.

Other Important Recreation Planning Considerations: In addition to the above, the following aspects of recreation planning and management have been considered.

Recreation Niche: Another important recreation planning tool is to determine the recreation niche or distinctiveness of a geographic area and strive to preserve those features and qualities. The Gold Belt travel planning area possesses several distinctive features and attractions that define its recreation niche.

The area is internationally known for these distinctive and unique recreation attractions:

1. The Gold Belt Tour National Scenic Byway (auto-touring)
2. Sport rock-climbing at the Shelf Road Climbing Area
3. Dinosaur fossil discoveries and research in the Garden Park Fossil Area.

The area is regionally distinctive for:

1. Solitude and unconfined recreation within the Beaver Creek WSA,
2. Backcountry horseback riding opportunities, and
3. Motorized recreation in the Penrose Commons including the popular Independence extreme jeep trail.

Regional Scale Analysis: Another important aspect of niche identification and recreation assessment is to identify the existing recreational road and trail opportunities found within the regionally affected area. The regionally affected area was identified and recreation opportunities were analyzed in a broad landscape. See [Map 7](#) in Appendix 3.

Numerous motorized and non-motorized opportunities were found outside the travel planning area. It is important to know if other areas are providing the same types of recreational opportunities. This helps to define the distinctive products that are provided only within the Gold Belt area and those not found within the market area.

Road and Trail Assessment: Qualifying and quantifying the benefits of a recreational travel network is inherently complex. Preferences and attitudes about what is fun, what benefits are derived, and why people are engaging in those activities vary by individual, group, and even community.

A basic recreation benefit ranking of the routes within the planning area was developed and analyzed. This ranking attempted to make un-biased analyses of benefits to motorized and non-motorized recreational activities. This ranking is an assessment of recreational benefits associated with individual travel routes but does not respond to potential user conflicts or desired area-wide user experiences and benefits.

Most of the routes in the planning area were identified as moderate or high value for recreation. It became clear that many of the parallel roads, spur roads leading to private lands, and spur roads leading to range improvements were of little or no recreation value and could be eliminated with minimal impacts to recreation users. This benefit ranking was utilized in the development of the four alternatives for this plan.

Visitor Use Analysis: The trends for the Gold Belt region are growth in tourism, local communities, and demand for recreation opportunities. The anticipated growth in tourism and recreational use of Public Lands indicates a need for a visitor use plan. A visitor use plan would address the type and amount of visitor use that is appropriate to achieve the identified DFCs (desired resource and social conditions). As part of this plan, a model was developed to estimate future use based on traffic counter and other forms of data for the Shelf Road Climbing Area, The Gulches and Bare Hills sub-units. The estimates from the model will provide baseline data for future visitor use planning.

Recreation Management and Implementation: Appropriate recreation management is essential to adequately implement the decisions made in

this travel plan. The recreation guidelines and BLM's *OHV National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands* provide direction for proper management. Some of the more important points include: educating recreationists; providing clear and consistent maps; signing routes; developing brochures; increasing partnerships with user groups and volunteer efforts; increasing on-the-ground presence; developing support facilities in appropriate locations; developing an inventory and monitoring of recreational uses; and developing recreation plans, capacity models, and adaptive management that will ensure that the DFC goals and the Standards for Public Land Health are achieved.

Important characteristics for a good travel system for recreationists includes: developing appropriate staging areas, parking lots, and trailheads; locating routes that access desirable features, overlooks, and recreation areas; providing loop opportunities rather than routes that dead-end; locating routes so that they are easily constructed, maintained, and sustained; and providing routes that offer different experience levels.

Other Travel Related Issues

Target Shooting: Recreational target shooting is a popular and important recreational opportunity on public lands within the Gold Belt planning area. Target shooting is allowed on Public Lands in conformance with all state, local, and Federal laws associated with possession and/or use of firearms. Target shooting is an activity allowed on Public Lands in a dispersed and undeveloped manner. BLM's recreation program, however, does not have the authority to operate and/or manage formal target shooting ranges. Any formal request or community need for a target shooting range is handled by a land disposal or under the provisions of the Recreation and Public Purpose (R&PP) Act.

To appropriately analyze the impacts of recreational target shooting, it is important to identify the two primary types of recreational target shooting. The first type, referred to as dispersed target shooting, occurs in undeveloped areas away from other visitors, landowners, and roadways and is done safely with minimal impacts and conflicts. Dispersed target shooting occurs on approximately 91 % the public lands within the planning area. The second type, referred to as concentrated target shooting, occurs in areas of heavy and diverse uses. Recurrent impacts and conflicts occur in these areas. Concentrated target shooting occurs on approximately 9 % of the public lands within the planning area.

NOTE: Recreational target shooting does not include recreational hunting. Hunting opportunities will not be changed or affected.

Recreational target shooting within the Gold Belt TMP area has been identified as an issue related to the designation of roads and trails in this planning effort. The concerns or issues raised include:

- **Resource Damage:** Concentrated target shooting areas result in high levels of damage and impacts. Direct impacts associated with these areas are the shooting of trees and rocks. The indirect impacts include: litter, new route proliferation, vandalism, illegal dumping and other illegal activities. These areas require more clean-up efforts, monitoring and law enforcement presence, and user education efforts than areas where concentrated target shooting does not occur.
- **Safety Concerns:** As visitation increases among all types of recreational users, so do the conflicts between user groups. In crowded areas, shooting increases conflicts among users and threatens user safety. Recreationists and nearby landowners have concerns for their personal safety, as well as damage to property.
- **Noise:** Repetitive noise from concentrated target shooting areas creates an impact on all other recreational experiences and the quality of life for nearby residents. Many other recreational users, such as hikers and mountain bikers, tend to avoid these areas because of the noise of gunfire.
- **Exclusive use:** Exclusive use is created as target shooting becomes concentrated, because the heavily used target shooting areas discourage other recreation users, due to their personal safety concerns. As a result, fewer lands and opportunities are available for other recreational uses.

The concerns relating to target shooting primarily relate to one common theme – heavy concentrations of target shooting use. The conflicts and impacts relating to target shooting are primarily found on those Public Lands located on the outskirts of local communities. Within the Gold Belt planning region, the areas of conflict and impact include: Garden Park (Dinosaur Flats and Oil Well Flats), Penrose Commons, Shelf Road Recreation Area, and Phantom Canyon. [Map 15](#) shows the areas affected by target shooting in the Garden Park Sub-unit. Because this issue is related to the designation of roads and trails, the impacts will be analyzed and addressed in this plan.

Table 11 provides an overview of the range of alternatives specific to the recreational target shooting issue. This information was handed out to the public at the July 2, 2003 public meeting.

Table 11 Target Shooting Alternatives

Area	Current Use	Low Use	Proposed Action	High Use
Penrose	Allow dispersed target shooting	Allow dispersed shooting	Close area to target shooting	Close area to target shooting
Oil Well Flats	Allow dispersed target shooting with an existing closure restriction.	Allow dispersed shooting with existing closure restriction.	Close area to target shooting	Close area to target shooting
Dinosaur Flats	Allow the developed target shooting area to remain open with an existing closure restriction for the rest of the area.	Leave target shooting area open with existing closure restriction.	Leave target shooting area open until another suitable area in the region can be opened and then the target shooting area will be closed.	Close the target shooting area
Phantom Canyon	Allow dispersed target shooting	Specific high use sites would be closed to target shooting	Same as Low Use Alternative	Same as Low Use Alternative
Shelf Road	Allow dispersed target shooting	Allow dispersed target shooting with the following exception: the developed area and climbing cliffs would be closed to target shooting	Same as Low Use Alternative	Same as Low Use Alternative
All other sub-units	Allow dispersed target shooting	Same as Current Use Alternative	Same as Current Use Alternative	Same as Current Use Alternative

Most of the Public Lands in the planning area are open to recreational target shooting, with the exception of two closures in the Garden Park Fossil Area (1995). Some of the more popular areas for target shooting are also popular areas for many other recreational opportunities and other uses such as grazing, rock-collecting, and wood cutting. The 5 areas with concentrated target shooting use are: Garden Park (Dinosaur Flats and Oil Well Flats), Penrose Commons, Shelf Road Recreation Area, and Phantom Canyon.

The annual visitor use in these areas has grown substantially over the last

10 years. Local and Front Range communities are becoming more dependent on Public Lands for a variety of recreational opportunities. In addition, many of the lands surrounding these Public Lands have been sub-divided into home sites. Today, many people live adjacent to Public Lands and are concerned about the amount of unsafe target shooting occurring near their private property and about the negative impacts from noise that disrupts the quality of life. Several factors were used for evaluating target shooting related conflicts in the Royal Gorge Field Office, such as: amount of visitor use, recurrent resource impacts, recurrent safety conflicts, proximity to developed recreation sites, and compatibility with other uses and goals for an area.

Off-Route Parking, Camping, and Game Retrieval Policy: For BLM Public Lands and National Forests the distance that OHVs are currently permitted to drive off existing or designated roads for parking, camping and game retrieval is 300 feet. This regulation applies generally to most BLM and Forest Service lands, with the exception of developed recreation facilities and other areas of concentrated use where parking or camping is restricted to designated parking areas and camping spurs.

Due to higher levels of public use on the Public Lands and National Forests, BLM and Forest Service managers are concerned that the long-standing 300 foot regulation is outdated and no longer provides adequate protection of vegetation and other resources. One of the major concerns with the 300 foot regulation is that it leads to the establishment of new roads through their repeated use, and that these new roads in turn become the jumping-off points for additional 300 foot extensions. As a result of these concerns, both the Forest Service and BLM are moving towards revising their regulations to decrease the distance that motor vehicles can legally drive off roads to park, camp, and retrieve game.

Off-Route Mountain Bike Use: Mountain bikes are currently allowed off existing travel routes. Experience in other BLM areas has shown that off road impacts from mountain biking can be substantial, causing soil erosion, damage to riparian areas, fragmentation of wildlife habitat, and conflicts with other users. There is a need to restrict mountain bikes to designated routes to curtail impacts caused by increased mountain biking use.

Environmental Consequences & Mitigation:

Current Use Alternative: The routes available in the Current Use Alternative, as shown below, offer high levels of motorized recreational use and access but limited non-motorized recreational use.

103.8 miles of motorized recreational access
59 miles of non-BLM (primarily county roads) provide motorized access
31.8 miles of non-motorized recreational access

Except for "User Created" routes, which will be closed, the Current Use Alternative would allow continued uses of the existing roads and trails.

Although this alternative provides a high number of motorized access routes, it closes the User Created routes and does not address many of the factors that could enhance recreation opportunities and reduce conflicts and impacts. Loop routes are not developed, adequate parking and staging areas are not addressed, routes are not placed in sustainable locations, and desirable features are not incorporated in the travel system. Consequently, this alternative fails to incorporate the concepts of a well planned travel system.

The Gold Belt planning area has numerous areas that are appropriate for non-motorized types of recreation. The Current Use Alternative would provide only a limited number of non-motorized routes for long distance horseback riding, mountain biking, and hiking. The Current Use Alternative fails to adequately respond to the needs of non-motorized recreation users.

The Current Use Alternative is compatible with the DFCs of some of the sub-units but not with those for Garden Park, Shelf Road Climbing Area, The Gulches, and Penrose Commons. The Current Use Alternative does not adequately address the importance of the fossil and plant resources in the Garden Park sub-unit. These resources could continue to be negatively impacted.

Motorized recreation uses are increasing in the Shelf Road Climbing Area and The Gulches sub-units and are creating user conflicts. This alternative would not address concerns with the speed and amount of traffic, noise, and dust caused by increased OHV use. This use is not compatible with the quiet backcountry setting of these sub-units and detracts from the rock-climbing experience and other non-motorized recreation activities.

The DFC for Penrose Commons is to enhance motorized recreation. The Current Use Alternative allows for a high level of motorized recreation use but does not provide loop connections, access to destination points, varying levels of challenge, and other factors that are needed to enhance the motorized recreation experience.

Other Recreation Related Issues

Target Shooting: The Current Use Alternative would allow existing levels of use and locations of recreational target shooting to continue throughout

the Gold Belt planning area. Most dispersed target shooting occurs safely in undeveloped areas away from other visitors, nearby landowners, and roadways and causes minimal impacts and conflicts. Under the Current Use Alternative, most of the Public Lands in the planning area would continue to remain open to dispersed target shooting.

The impacts and conflicts associated with target shooting, however, do become important when it is concentrated in areas where high levels of other uses also occur, or when it is located next to private lands. The recurrent impacts from concentrated target shooting include: litter; new route proliferation to target shooting sites; vandalism; damage to vegetation; noise; and the creation of areas with high levels of lead. The recurrent social conflicts from concentrated target shooting include: visitor safety; quality of life for adjacent landowners (noise, safety); and the incompatibility of target shooting with other recreation uses.

Under the Current Use Alternative, no additional target shooting closures would be implemented in the planning area. The aforementioned impacts and social conflicts resulting from concentrated target shooting would increase over time.

Off-Route Parking, Camping, and Game Retrieval Policy: Under this alternative, the distance that OHVs can drive off existing roads for parking, camping and game retrieval would remain at 300 feet. This alternative would not establish a policy consistent with the new distance regulation of 100 feet that is being considered by the Forest Service and other BLM Field Offices. This would be confusing for the public when visiting different areas around the state. The current 300 foot regulation results in route proliferation by allowing extensions of user created routes from existing roads. This results in increased damage to soil and vegetation and other resource impacts, such as increased litter, dumping, and other illegal activities.

Off-Route Mountain Bike Use: Under this alternative, mountain bikes would not be restricted to existing travel routes. The impacts caused by the use of mountain bikes off existing travel routes is currently low due to low numbers of mountain bike users who ride in the planning area. As use increases, however, experience in other BLM areas has shown that off road impacts from mountain biking can be substantial, causing soil erosion, damage to riparian areas, fragmentation of wildlife habitat, and conflicts with other users. The Current Use Alternative fails to establish policy that would curtail increased mountain bike impacts that is anticipated to occur in the future.

Summary: The Current Use Alternative fails to provide a planned transportation

system that would adequately address user conflicts or enhance recreation opportunities throughout the planning area. This alternative does not respond to the issues and concerns related to target shooting, off-route parking, and off-route mountain bike use. Incompatibility with the DFCs for some of the sub-units (e.g., Garden Park, Shelf Road Climbing Area, The Gulches, and Penrose Commons) would conflict with the Byway Plan and RMP direction. Cumulative impacts (noise, route proliferation, resource damage, safety, and user conflicts), will continue or increase as a result of this alternative.

Proposed Action: The routes proposed in this alternative, as shown below, would provide for moderate levels of motorized recreational use and increased opportunities for non-motorized recreational use.

75.4 miles of motorized recreational access

59 miles of non-BLM (primarily county roads) provide motorized access

82.1 miles of non-motorized recreational access

The Proposed Action would designate 28.4 fewer miles of motorized routes than the Current Use Alternative. The loss of approximately 27 % of the motorized mileage reduces the opportunities for motorized recreation in some areas. Some of the routes that would not be designated for motorized use include those that provide little recreation benefit, such as: short spurs, parallel routes, and routes to range improvements. Much of the loss in mileage is offset by improvements to the travel system (connecting routes, new routes, and route conversions) and, in turn, would improve the overall recreational experience for motorized users. This alternative includes loop routes, adequate parking and staging areas, and the location of routes in better locations.

This alternative would slightly reduce the opportunities for dispersed car-camping and other vehicle-related recreation activities.

The Proposed Action would increase non-motorized recreation opportunities by providing 50.3 more miles of non-motorized routes than the Current Use Alternative. This alternative would provide additional non-motorized routes for long distance horseback riding, mountain biking, and hiking. The Proposed Action would be compatible with the sub-unit DFCs and the recreation niche characteristics. As a result, user conflicts and resource impacts would be reduced.

Other Recreation Related Issues

Target Shooting: The Proposed Action would allow dispersed target shooting to continue throughout most of the planning area. Under this alternative, target shooting would be immediately closed in the Shelf Road Climbing Area, Phantom Canyon, and Penrose Commons sub-units, and in the Oil Well Flats portion of the Garden Park sub-unit. Target shooting

would remain open in the Dinosaur Flats portion of the Garden Park sub-unit until such time as another suitable area in the Canon City area is located, then it will be closed.

Closure of the above areas to target shooting would reduce the following recurrent impacts: safety concerns of other users and nearby landowners; user conflicts; noise impacts to other recreational users and adjacent landowners; and resource impacts in the areas. It would also enhance opportunities for motorized and non-motorized recreation, and more closely follows the established DFCs for these high use areas.

The Proposed Action would impact recreational target shooters more than other recreationists. The proposed closure of many of the most heavily used and popular target shooting areas could cause a ripple-effect. For example, individuals who regularly target shoot at the Penrose Commons sub-unit would now have to use the remaining areas open to shooting or use the Dinosaur Flats area for target shooting. Consequently, target shooting would initially increase at the Dinosaur Flats area and at other more dispersed and undeveloped sites, however, the impacts resulting from increased use at Dinosaur Flats would be eliminated when a new public target shooting area can be located and opened within the Canon City region.

Off-Route Parking, Camping, and Game Retrieval Policy: Under this alternative, the distance that OHVs can drive off existing roads for parking, camping and game retrieval would be changed from 300 feet to 100 feet. This alternative would conform to the new distance regulation of 100 feet that is being considered by the Forest Service and other BLM Field Offices. The 100 foot regulation would be easier for the public to understand and consistent with other land managing agencies. Impacts to soils and vegetation and other resource impacts, such as increased litter, dumping, and other illegal activities would be reduced as a result of this regulation change.

Off-Route Mountain Bike Use: Under this alternative, mountain bikes would be restricted to designated travel routes. Under this alternative, however, the routes that bicycles could use would increase substantially, since all designated motorized routes are also available to bicycles. Because of the low level of off-route mountain biking that currently occurs, the impact of restricting use to designated routes would not substantially affect this use. The current and future impacts associated with off-route mountain biking would be reduced, including soil erosion, damage to riparian areas, fragmentation of wildlife habitat, and conflicts with other users.

Summary: The Proposed Action would improve the overall transportation system

for motorized and non-motorized recreation and would result in decreased short term, long term, and cumulative impacts. The Proposed Action would meet the DFCs for all sub-units. This alternative would reduce opportunities for recreational target shooting but would increase opportunities for travel related recreation. The impacts to users from the distance OHVs can drive off designated routes and the designation of mountain bike routes would be minimal.

Low Use Alternative: The number of routes designated by the Low Use Alternative, as shown below, would reduce the levels of recreation use and access.

37.2 miles of motorized recreational access
59 miles of non-BLM (primarily county roads) provide motorized access
47.7 miles of non-motorized recreational access

The Low Use Alternative would place a high emphasis on other resource values (riparian, wildlife, and vegetation) and would greatly reduce the miles of motorized routes and slightly increase the miles of non-motorized routes available for recreation. This alternative would designate 66.6 fewer miles of motorized routes than the Current Use Alternative. The loss of approximately 64 % of the motorized mileage substantially reduces the opportunities for motorized recreation. This may increase user conflicts by concentrating all uses on remaining routes, and result in the vandalism of signs and facilities and in off-route violations. This alternative would substantially reduce the opportunities for dispersed car-camping and other vehicle-related recreation activities.

The Low Use Alternative would also designate 15.9 more miles of non-motorized recreation opportunities than the Current Use Alternative. The gain in non-motorized mileage would slightly increase opportunities for hiking, horseback riding, and mountain biking. Most of the mileage increase would come from the conversion of existing motorized routes to non-motorized uses. This alternative, however, would not include any new trails or connections and would not take advantage of the high potential for non-motorized recreation that exists in the area.

This alternative is compatible with the DFCs for most sub-units but not those in the Shelf Road Climbing Area, The Gulches, Bare Hills, Booger Red, Seep Springs and Penrose Commons. The DFCs for these specific sub-units allow for appropriate types and levels of recreation that are not provided under this alternative.

Other Recreation Related Issues

Target Shooting: The Low Use Alternative would allow dispersed target shooting to continue throughout most of the planning area. Under this alternative, target shooting would immediately be closed in the Shelf Road Climbing Area and Phantom Canyon sub-units, and the existing closures

in the Garden Park sub-unit would be retained.

The Low Use Alternative would only slightly reduce opportunities for recreational target shooting, and would be slightly more restrictive than the Current Use Alternative. Closure of the above areas to target shooting would reduce the following recurrent impacts: safety concerns of other users and nearby landowners; user conflicts; noise impacts to other recreational users and adjacent landowners; and resource impacts in the areas. It would also enhance opportunities for motorized and non-motorized recreation in the affected sub-units, and more closely follows their established DFCs. The Low Use Alternative, however, would allow concentrated target shooting to continue in the Garden Park and Penrose Commons sub-units. Consequently, the resource impacts and conflicts within these high use areas would continue to increase over time and travel related recreation activities would continue to be negatively affected. The long term and cumulative impacts would be similar to that found under the Current Use Alternative.

Off-Route Parking, Camping, and Game Retrieval Policy: The impacts would be the same as those found under the Proposed Action.

Off-Route Mountain Bike Use: The impacts would be the same as those found under the Proposed Action.

Summary: The Low Use Alternative would substantially reduce the miles of routes that would be available for motorized recreation. Overall, this alternative would result in greatly increased short term, long term, and cumulative impacts to recreation uses. This alternative would move the recreational opportunities away from achieving DFCs in six of the sub-units. This alternative would slightly reduce opportunities for recreational target shooting and continue to allow many of the target shooting conflicts to continue. The distance OHVs can drive off designated routes and the designation of mountain bike routes would result in minimal impacts to users.

High Use Alternative: The increased number of routes designated by the High Use Alternative, as shown below, would provide high levels of recreation use and access.

119.5 miles of motorized recreational access
59 miles of non-BLM (primarily county roads) provide motorized access
70.1 miles of non-motorized recreational access

The High Use Alternative would designate 15.7 additional miles of motorized routes than the Current Use Alternative. This alternative would improve motorized recreation by providing new opportunities through the construction of new routes and by the development of loop routes. This would, in turn, improve

the overall recreational experience for motorized users. This alternative would moderately increase the opportunities for dispersed car-camping and other vehicle-related recreation activities.

The High Use Alternative would also designate 38.3 additional miles of non-motorized recreation routes than the Current Use Alternative. This alternative would increase the miles of non-motorized routes and would greatly increase non-motorized recreation opportunities.

This alternative is compatible with most of the sub-unit DFCs but not those in Garden Park, Shelf Road Climbing Area, The Gulches, and Bare Hills. The High Use Alternative does not address the importance of the fossil and plant resources in the Garden Park sub-unit and they would continue to be impacted. The high number of motorized routes within the Shelf Road Climbing Area, The Gulches and Bare Hills sub-units would increase the impacts to non-motorized recreation.

Other Recreation Related Issues

Target Shooting: The High Use Alternative would allow dispersed target shooting to continue throughout most of the planning area. Under this alternative, target shooting would immediately be closed in the Shelf Road Climbing Area, Phantom Canyon, Garden Park, and Penrose Commons sub-units.

Except for the immediate closure of the Dinosaur Flats portion of the Garden Park sub-unit, the impacts from the High Use Alternative would be similar to those of the Proposed Action. The closure of the Dinosaur Flats area would reduce the problems at this site but would not respond to the need to find an alternate public target shooting site near Canon City.

The High Use Alternative would have a high impact on recreational target shooters. The simultaneous closure of all of the most heavily used target shooting areas would immediately displace target shooters. Target shooters would seek other nearby Public Lands, thereby shifting the impacts to other locations that had previously only been lightly used for target shooting. Without a convenient place for target shooters to use, like the Dinosaur Flats area, it is anticipated that many new shooting sites will appear in other portions of the planning area.

The closures would increase the number of travel related recreation opportunities available within the affected areas. It would reduce noise impacts that contribute to user conflicts and reduce resource impacts of litter, vandalism, and new route proliferation. Long term and cumulative impacts from the concentrated target shooting areas would be eliminated but shifted to other areas. In the short term, non-compliance with target shooting closures could occur until users become familiar with the new

closures.

Off-Route Parking, Camping, and Game Retrieval Policy: The impacts would be the same as those found under the Proposed Action.

Off-Route Mountain Bike Use: The impacts would be the same as those found under the Proposed Action.

Summary: The High Use Alternative would moderately improve the transportation system for motorized and non-motorized recreation. Although the miles of available routes are increased, this alternative only partially incorporates those factors (see Recreation Management and Implementation in the Affected Environment section) that make a good travel system. This alternative would move the recreational opportunities away from achieving DFCs in four of the sub-units. The High Use Alternative would sharply reduce the opportunities for recreational target shooting but would increase opportunities for travel related recreation. The distance OHVs can drive off designated routes and the designation of mountain bike routes would result in minimal impacts to users.

Mitigation Common to All Alternatives:

1. Monitor and evaluate the levels and types of uses on designated routes in order to achieve the DFCs for the sub-units. Monitoring would include: traffic counter data, on-site patrols, surveys, analysis of use.
2. Develop educational materials for users including site specific maps, brochures, interpretive exhibits, trailhead information kiosks.
3. Develop staging and parking areas/trailheads at major access points.
4. Develop and maintain partnerships with key stakeholders.
5. Increase efforts to educate visitors about responsible use.
6. Provide clear maps, signs, guidelines, and other information for users of routes.
7. Implement wet weather closures, seasonal closures, or other closures.
8. Provide on-site visitor contact by BLM personnel.
9. To maintain dispersed camping opportunities, identify existing and appropriate short spur routes (less than 600 feet) to popular dispersed campsites and incorporate them into the designated travel system.

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TRANSPORTATION

Affected Environment: The existing BLM road network consists mostly of low standard native surface roads that are linked to county, state, and Federal highways. With very few exceptions, the existing routes were established to access and serve specific purposes, including such activities as: mining, grazing, timber and wood cutting; construction and maintenance of power transmission and telephone lines; construction of

flood control "check dams", irrigation ditches and pipelines; and for completing "chaining" operations and wildfire suppression. Whereas the landownership pattern has changed over time, with BLM acquiring lands that had previously been privately owned, some of these roads were developed with BLM involvement while others were not. Many roads were developed for intermittent or temporary access and were not designed or constructed to carry high traffic loads and sustained amounts of use.

Most of the roads that are the subject of this planning effort have been around for fifty to sixty years. Most of these roads were originally designed to serve the functional needs of a relatively small number of people; however, many have been improved over the years to accommodate changes in the types of vehicles that use them and to respond to the growing usage of roads for a variety of recreational purposes.

In today's environment BLM roads serve both functional and recreational needs but with a much higher emphasis on the latter than existed fifty years ago. Roads are still needed to access power lines, build and maintain fences for grazing, etc., but are needed as well for serving a wide variety of recreational needs.

In preparing for the TMP, one of the first steps in the planning process was to conduct a thorough inventory of all of the existing BLM roads and trails in the Gold Belt planning area. Whenever possible, this inventory utilized global positioning satellite (GPS) and geographic information system (GIS) technologies to accurately locate and characterize the roads and trails. In areas that could not be physically reached for utilizing GPS, other less accurate means were used to capture the routes, including aerial photo interpretation and the transference of existing transportation data from other reliable sources. With the exception of the routes contained within the Deferred Analysis sub-unit, virtually every route in the planning area was driven, ridden, or walked to record and characterize them with a GPS receiver.

The inventory identified a total of 397 miles of existing roads and trails on Public Lands within the planning area. This total includes 59 miles of Non-BLM roads, managed under county, state, or Federal highway jurisdictions, that are not affected by decisions made in this plan. Subtracting the Non-BLM mileage leaves a total of 338 miles of BLM managed routes that are affected by the decisions made in the plan (see Table 12 for details).

Table 12 Existing Routes on Public Lands by Travel Way Classes

Travel Way Class	Class Description	Mileage
Class 3	Light duty maintained - dirt	6.1
Class 3b	Light duty maintained - graveled	0.5
Class 4	Primitive Road	64.7
Class 5	Primitive 4WD	147.6
Class 5x	Extreme Jeep	1.3
Class 6a	ATV	14.6
Class 6b	Single track - motorized	0.4
Classes 6d & 6e	Single track - non-motorized	37.7
Class 7	Closed Road	27.0
User Created Routes		12.4
Unclassified		25.5
Total		337.8

The travel way classifications used in Table 12 describe the physical characteristics of the routes in terms of width, surface, and the type of traffic they are intended to accommodate. For the purposes of the travel management plan, however, the roads were also classified to characterize them in terms of designated uses that identify the range of travel uses that are available on the individual roads and trails. The travel uses classification system used in this plan conforms to the standards adopted by the Colorado Natural Resources Group, except for the User Created, Non-BLM, and Non-System classes. The latter three categories were developed specifically to address routes that do not fit within the standard Colorado Natural Resources Group classification system.

The mileages of existing routes by travel use classes are summarized in Table 13. The locations of the routes are displayed on the maps for the Current Use Alternative (see map in back pocket), and the explanation of the travel use classes is located in [Appendix 2](#).

Roads and trails impact soils, vegetation, water, air quality, wildlife habitat, and other resource values. Poorly designed and maintained roads and trails promote erosion that degrades streams and wetlands with associated reductions in fish habitat and productivity. The construction of new roads or trails increases the impacts to soils and watersheds by exposing more areas of bare soil that are subject to erosion.

Table 13 Gold Belt TMP Travel Use Classes

Class Abbreviation	Uses Allowed	Mileage
F	foot	5.8
E	foot, horse	13.3
B	foot, horse, bicycle	12.7
M	foot, horse, bicycle, motorcycle	0.1
A	foot, horse, bicycle, motorcycle, ATV	9.1
O	general - all motorized, mechanized, non-motorized uses	94.6
Non-BLM	county, state, Federal highways	59.3
Non-System*	closed or for administrative use only	189.6
UC	User Created	12.6
Total		397.1

** Routes included in the Non-system category are not available to the general public for motorized or mechanized uses. However, some are needed to provide administrative access for BLM personnel and authorized permit and right-of-way holders. The routes included in the NS category are not managed for specific recreation uses but, as long as the routes are legally accessible (not blocked by private lands), they are available to the public for foot and horse travel.*

The frequency and intensity of work required to maintain a given road or trail is directly related to the overall physical makeup of the route (soil type, slope, vegetative cover, aspect, etc.), as well as to the amount and type of traffic that occurs on it. Routes with high levels of traffic, and routes that are used for modes of travel that cause high amounts of disturbance to the traveling surface, require more maintenance than routes with low levels of use and that are used for low impact modes of travel. All of these factors were considered in analyzing and comparing the environmental impacts and required maintenance needs of the travel management alternatives that were addressed in this plan.

Currently, the BLM annually maintains an average of 20 miles of the BLM system roads within the Gold Belt Planning Area. All of these roads are Travel Use Class O (General), and include Class 3, 3b, and 4 travelways (from Table 12). Scheduled maintenance consists of using heavy equipment to blade the surface, reconstruct water bars, and clean drainage turnouts. Most of these roads are maintained annually (17 miles), while others are only maintained every two or three years. Examples of annual maintenance include the main access roads into areas such as Garden Park, Penrose Commons, and the Shelf Road Climbing Area. Examples of roads that are maintained every two or three years include Deer Haven Ranch and Booger Red Hill. The average annual cost of scheduled maintenance in the Gold Belt planning area, including equipment contracting and contract administration costs, is approximately \$10,000.

In addition to scheduled maintenance, BLM performs maintenance and improvements of roads by other means, including deferred maintenance and capital investment programs, and in conjunction with individual project activities such as fuels reduction projects,

wood products sales, and fire suppression. Some road maintenance is also performed by authorized holders of BLM permits. A example of a deferred maintenance project within the Gold Belt planning area is the road into the Dinosaur Flats portion of the Garden Park sub-unit, where construction and gravel surfacing was completed in October 2003.

The planning area contains only a few developed trails. The inventory shows some 37 miles of non-motorized and less than 1 mile of motorized single track routes. In reality, only 10 miles of these are constructed single track foot and horse trails. The other 27 miles consist primarily of travel routes created by cattle that are also used by people. The construction, maintenance, and improvement of trails is primarily accomplished through volunteer efforts by organizations and groups affiliated with various uses (horseback riding, rock climbing, ATV and motorcycle riding, etc), with minimal use of BLM appropriated funds.

All of the action alternatives would implement route designations (i.e., limit OHVs to designated routes) that would require the expenditure of BLM funds from various sources to perform the tasks commensurate to the needs of the alternative. Such tasks include:

- Providing management presence and enforcing travel designations
- Installing and replacing travel management signs
- Maintaining existing roads and trails
- Constructing new roads and trails
- Reconstructing or improving existing roads and trails
- Retro-fitting or converting roads to trails (reducing widths of existing travel ways to fit designated travel uses, such as converting a jeep road to a bicycle trail)
- Installing and maintaining closure devices (gates, boulders, earthen berms, etc.).
- Decommissioning abandoned routes
- Constructing and maintaining trailhead facilities
- Preparing travel maps and brochures
- Monitoring and evaluating use and implementing needed travel management changes

A Table displaying the estimated implementation costs for each alternative is included in [Appendix 17](#).

Other Transportation Management Issues Addressed in the TMP: During the preparation of the Gold Belt TMP, the following issues surfaced that have a direct bearing on the management of the BLM transportation system.

BLM Maintenance of County Roads - During the inventory phase of the TMP, BLM discovered several roads in the Gold Belt planning area that were thought to be BLM system roads but are actually part of the Fremont County Highway system. None of the roads in question, however, were being maintained by the county but some were being maintained by BLM. The roads in question include FCR: F35 (Oil Well Flats Road); F34 (Trail Gulch Road); F25 (Seep Springs Road); and west end of F24 (Red Canyon Park Road).

The problem is this - BLM does not have legal authority to spend Federal dollars on maintaining county roads, and cannot continue maintaining those in question. Because these roads provide important public access to high use areas on Public Lands, there is a need for continued maintenance. BLM is currently working with the Fremont County Commissioners to resolve this problem by either including the roads in the county's maintenance schedule or vacating them so that BLM can continue to maintain them in the future.

Private In-holding in Little Mack Gulch Sub-unit - During the analysis phase of the TMP, BLM discovered that the main public access road (BLM 5750) into the Little Mack Gulch Sub-unit crosses a small private in-holding. The current owner has never posted the property and the public has historically used the road to access the area. Because BLM does not have a road easement across the property to establish legal public access, BLM cannot legally designate the road that crosses and extends beyond the private land for public use. BLM is currently working with the landowner to acquire legal public access. The continued use of BLM 5750, as included in the Proposed Action, is dependent upon the satisfactory resolution of this problem.

The Road to Cactus Rose Cliffs Parking Area - The issue related to this road was identified by several stakeholders during the public comment phase of the TMP. The road in question is located in the Shelf Road Climbing Area sub-unit and provides access for rock climbers to the parking lot for the Cactus Rose Cliffs. The road was constructed by a private party on a right-of-way granted by BLM, and also provides access to sub-divided private lands located immediately north of the Cactus Rose Cliffs. The problem with the road is that it is very steep and presents an extreme driving hazard when conditions are wet or icy. To address this problem, BLM considered two options:

1. Close the road to motor vehicles, except for sub-division landowners and BLM personnel and contractors. This option would require rock climbers and other recreation users to park their vehicles at the small parking areas located at the bottom of the road, or to park at the Bank Campground and hike to Cactus Rose Cliffs. Instead of being able to drive to the upper parking lot, they would have to hike up the road a distance of approximately one-half mile to the climbing walls.

This option would reduce the risk of accidents and limit BLM liability by preventing the general public from driving on the road. The existing parking area at the bottom of the road, however, will only accommodate three to four vehicles. Also, parking directly along the Shelf Road is not an option, as it is prohibited by the Fremont County Sheriff. Consequently, the implementation of this option would require the installation of a gate and improvement of the existing parking areas at the bottom of the road. The major advantage of this option to the BLM is that

the sub-division landowners would be solely responsible for maintaining and repairing the road. BLM would not be obligated to maintain or repair the road and would be relieved of liability for potential accidents. The major drawback to this option would be the inconvenience to rock climbers, due to the distance they would have to walk to reach the climbing walls.

2. Leave the road open to the public and mitigate hazardous conditions. This option would involve applying various mitigation measures to reduce the driving hazard when conditions are wet or icy. Such measures could include: closing the road to the public during wet and icy conditions; graveling or paving the road to eliminate muddy and slippery driving surfaces; reconstructing hazardous areas to reduce out-slopes and to improve drainage; installing guard rails in strategic locations; and installing appropriate warning signs to discourage driving on the road when conditions are hazardous.

This option would reduce the risks of driving on the road by: improving surface conditions; preventing the public from driving on the road during wet and icy periods; installing safety guard rails to prevent serious accidents; and raising user awareness of hazardous conditions.

Implementation of this option would require the expenditure of BLM funds to complete the needed improvements. BLM would coordinate the construction of these improvements with the right-of-way holder, however, the holder is only responsible for maintaining the road to a standard that meets his own needs and would not be obligated to jointly share in the cost of constructing these improvements.

Option 1 was selected as the preferred option for addressing this issue. Option 2 was not considered practicable due to the high cost of mitigating the conditions of this road, the long-term commitment that would be required for maintaining and managing its use, and continued liability concerns with public use of the road even with implementation of the proposed mitigation measures. BLM will implement the phased development of installing a gate near the bottom of the road and improving existing parking areas as funding becomes available.

Environmental Consequences:

Current Use Alternative: Under the Current Use Alternative the existing BLM transportation system would be unaltered. Full use and travel by motor vehicles would be allowed in the Penrose Commons OHV Open area and the use of motorized vehicles would be limited to existing roads and trails in all OHV Limited areas. User Created routes, which are not recognized as part of the authorized system, would be closed. Otherwise, current travel uses on existing recognized travel routes would be allowed to continue. The current policies allowing the use of bicycles and other mechanized vehicles off existing routes,

and driving motor vehicles 300 feet off existing roads to park, camp, or retrieve game, would be unchanged.

The BLM currently has 136 miles of motorized and non-motorized roads and trails in the Gold Belt planning area that are recognized as legal travel routes and that are managed for use by the general public. Approximately 104 miles of these are managed for motorized use, and 32 miles are managed for non-motorized use. In addition, about 190 miles of Non-system classified routes occur in the planning area for administrative purposes and are not available to the public for motorized recreational uses. For a complete summary of the mileages by the individual travel use categories for each alternative, see Tables [2-1](#), [2-2](#), [2-3](#), and [2-4](#) located at the front of this document in the section titled, “Descriptions of the Alternatives Used for the Assessment”.

Under the Current Use Alternative the environmental impacts to vegetation, water, wildlife, and other resources resulting from the increased use of poorly located and designed roads and trails would steadily grow over time. Conflicts resulting from the incompatible uses of roads and trails would also steadily increase. Existing routes that currently have low levels of motorized use, such as in The Gulches sub-unit, would steadily experience growing levels of motorized activity, resulting in greater impacts to the riparian and wildlife resources. Increased levels of motorized use in and around the Shelf Road Climbing Area and Garden Park sub-units would also severely conflict with rock climbing, camping, and other non-motorized recreation uses in these areas.

Under the Current Use Alternative the impacts to the management of the transportation system would also steadily grow over time. No immediate need for additional route construction or maintenance would result from this alternative. As recreation uses on Public Lands increase, however, the frequency and number of miles of routes requiring scheduled maintenance will gradually increase. Increased reconstruction and maintenance efforts will be needed to address the deterioration of routes that were not designed for sustained or high levels of use but that experience increased amounts of traffic. The closure and rehabilitation of some routes will also be needed where severe resource damage or conflicts with other uses occur.

Mitigation:

1. Provide scheduled maintenance of existing roads and trails, commensurate with increases in recreation use.
2. Focus the use of BLM maintenance funds on those routes providing primary access to Public Lands and where the amount of use is heaviest.
3. Continue to utilize alternative funding sources (BLM project funds, grants,

permittees, etc.) to augment road/trail maintenance and improvements.

4. Continue to develop volunteer partnerships for constructing, improving, and maintaining travel routes.
5. Manage, as needed, those routes that are severely deteriorated and that cannot be adequately maintained by closing, restricting travel uses, or relocating and reconstructing them.

Proposed Action: Under the Proposed Action the existing BLM transportation system would be modified with additional travel routes and the use of motorized vehicles would be limited to designated roads and trails. Additionally, the use of bicycles and other mechanized vehicles would be limited to designated routes, and the distance that vehicles can be driven off designated routes for parking, camping, or retrieving game would be reduced to 100 feet.

Under the Proposed Action, 158 miles of motorized and non-motorized roads and trails would be designated and managed for public use within the Gold Belt TMP area. Of these, approximately 76 miles would be available for motorized use, and 82 miles for non-motorized use. Under the Proposed Action, fewer miles of routes (28) would be managed for motorized use and more miles of routes (50) would be managed for non-motorized use than under the Current Use Alternative. For a complete summary of the mileages by the individual travel use categories for each alternative, see Tables [2-1](#), [2-2](#), [2-3](#), and [2-4](#) located at the front of this document in the section titled, “Descriptions of the Alternatives Used for the Assessment”.

Under the Proposed Action many of the existing routes that are causing or have the potential to cause environmental impacts to vegetation, water, wildlife, and other resources because they are poorly located and designed, would either be closed, reconstructed, or designated for travel uses that are less impacting to the environment.

Many existing routes would also be closed or designated for non-motorized and mechanized uses where conflicts or the potential for conflicts between incompatible uses are occurring. Travel uses on existing routes that are experiencing, or that would potentially experience steadily growing environmental impacts from motorized uses, such as in The Gulches and Bare Hills sub-units, would be managed to minimize impacts to riparian and wildlife resources. Travel uses in and around the Shelf Road Climbing Area and Garden Park sub-units would be better managed to avoid conflicts with rock climbing, camping, and other non-motorized recreation uses in these areas.

The construction or designation of new foot and horse trails in the Booger Red/Hole-in-the-Ground, Bare Hills, and Cooper Mountain sub-units would attract more recreational users into these areas and could result in additional resource impacts to riparian and wildlife. Since the use of these trails would be

limited to foot and horse travel, and the level of use is expected to be low to moderate, the impacts to the riparian and wildlife values should be minor.

The implementation of the Proposed Action would establish a system of roads and trails with designated travel uses that would generally benefit the overall management of the transportation system for planning construction and maintenance needs. The impacts to some aspects of transportation management would increase under the Proposed Action, including the construction of several new travel routes and the closure or restriction of motorized travel uses on many existing routes. The Proposed Action would generate the immediate need for additional maintenance and improvements to support the designated travel management system. Additional signage would be needed to designate the allowable travel uses on all BLM system and many Non-system routes (Non-BLM routes would not be signed). The installation of gates, barricades, and other closure devices would be needed to reinforce the travel restrictions. The construction of parking areas and other trailhead facilities would be needed to accommodate increased recreation usage.

In the short term, the management of the designated routes planned in the Proposed Action would require additional maintenance efforts, particularly for replacing signs that are likely to be removed or vandalized during the first few years after it has been implemented. In the long term, however, the removal and vandalism of signs should decrease as users become familiar with the new system. Also, one of the positive outcomes of a designated travel management system is that specialized user groups are generally willing to adopt routes that identify with their own interests. Thus, as various user groups develop a sense of ownership for their favorite travel routes and volunteer to adopt and maintain them, the need to utilize BLM funds for maintaining many of these routes could decline over time.

The scheduled maintenance of BLM system roads with heavy equipment would be slightly affected by this alternative. Most of the new routes that are proposed for construction under this alternative are trails and include only about 2 miles of full-size roads that could be included in the road maintenance program. Also, none of the roads that are currently being maintained would be closed or restricted by the Proposed Action but would continue to be included in the scheduled road maintenance program.

Mitigation: In addition to the mitigation listed under the Current Use Alternative, add the following:

1. Develop area-specific recreation travel maps and brochures for public distribution that clearly describe route designations and travel use opportunities.
2. Implement an aggressive sign maintenance program to replace stolen and vandalized travel management signs.

3. For new trail construction, utilize best management practices to provide stable travel facility that will minimize impacts to soils and watersheds.

Low Use Alternative: Under the Low Use Alternative the existing BLM transportation system would not be modified by additional travel routes but the use of motorized vehicles would be limited to designated roads and trails. In addition, the use of bicycles and other mechanized vehicles would be limited to designated routes, and the distance that vehicles can be driven off designated routes for parking, camping, or retrieving game would be reduced to 100 feet.

Under the Low Use Alternative, 144 miles of motorized and non-motorized roads and trails would be designated and managed for public use within the Gold Belt TMP area. Of these, approximately 96 miles would be available for motorized use and 48 miles for non-motorized use. Under the Low Use Alternative, fewer miles of routes (8) would be managed for motorized use and more miles of routes (16) would be managed for non-motorized use than under the Current Use Alternative. For a complete summary of the mileages by the individual travel use categories for each alternative, see Tables [2-1](#), [2-2](#), [2-3](#), and [2-4](#) located at the front of this document in the section titled, “Descriptions of the Alternatives Used for the Assessment”.

Under the Low Use Alternative nearly all of the existing routes that are causing or have the potential to cause environmental impacts to vegetation, water, wildlife, and other resources because they are poorly located and designed, would either be closed or designated for travel uses that are less impacting to the environment. Most of the existing routes with user conflicts or the potential for user conflicts would also be closed or designated for non-motorized and mechanized uses. Many existing routes that are experiencing or that would potentially experience environmental impacts from increasing recreation use would be designated as Non-system routes and would only be available to the public for foot and horse use. No new trails would be constructed that could negatively impact the resources in areas that are currently not easily accessible. Travel uses in and around the Shelf Road Climbing Area and Garden Park sub-units would be managed to minimize conflicts with rock climbing, camping, and other non-motorized recreation uses in these areas.

The implementation of the Low Use Alternative would establish a system of roads and trails with designated travel uses that would generally benefit the overall management of the transportation system for planning construction and maintenance needs. Of the three action alternatives, the impacts to transportation management would increase the least under the Low Use Alternative. The impacts to some aspects of transportation management, however, would increase under the Low Use Alternative, that closes or restricts motorized travel uses on many existing routes. The Low Use Alternative would generate the immediate need for additional signage to designate the allowable travel uses on all BLM system and many Non-system routes (Non-BLM routes would not be signed). The

installation of gates, barricades, and other closure devices would be needed to reinforce the travel restrictions.

In the short term, the management of the designated routes planned in the Low Use Alternative would require additional maintenance efforts, particularly for replacing signs that are likely to be removed or vandalized during the first few years after it has been implemented. In the long term, however, the removal and vandalism of signs should decrease as users become familiar with the new system. Also, as various user groups develop a sense of ownership for their favorite travel routes and volunteer to adopt and maintain them, the need to utilize BLM funds for maintaining many of the routes could decline over time.

The need for scheduled maintenance of BLM system roads with heavy equipment would be reduced by this alternative. Approximately four miles of BLM system roads that are currently included in the scheduled road maintenance program (BLM 5940, 5950, 5955, and 5805) would be converted to non-motorized use and would no longer require scheduled maintenance with heavy equipment.

Mitigation: Same as under the Proposed Action.

High Use Alternative: Under the High Use Alternative the existing BLM transportation system would be modified by additional travel routes and the use of motor vehicles would be limited to designated roads and trails. In addition, the use of bicycles and other mechanized vehicles would be limited to designated routes, and the distance that vehicles can be driven off designated routes for parking, camping, or retrieving game would be reduced to 100 feet.

Under the High Use Alternative, 190 miles of motorized and non-motorized roads and trails would be designated and managed for public use within the Gold Belt TMP area. Of these, approximately 120 miles would be available for motorized use and 70 miles for non-motorized use. Under the High Use Alternative, more miles of routes (16) would be managed for motorized use and more miles of routes (38) would be managed for non-motorized use than under the Current Use Alternative. For a complete summary of the mileages by the individual travel use categories for each alternative, see Tables [2-1](#), [2-2](#), [2-3](#), and [2-4](#) located at the front of this document in the section titled, “Descriptions of the Alternatives Used for the Assessment”.

Under the High Use Alternative most of the existing routes that are causing or have the potential to cause environmental impacts to vegetation, water, wildlife, and other resources because they are poorly located and designed, would be designated for motorized travel uses that would result in increased impacts to the environment. Many existing routes where conflicts or the potential for conflicts between incompatible uses are occurring would be designated for motorized uses. Travel uses on existing routes that are experiencing or that would potentially experience steadily growing environmental impacts from motorized uses, such as

The Gulches and Bare Hills sub-units, would result in greater impacts to riparian and wildlife resources. Motorized uses allowed by this alternative in and around the Shelf Road Climbing Area and Garden Park sub-units would greatly conflict with rock climbing, camping, and other non-motorized recreation uses in these areas.

The construction or designation of new bicycle, foot and horse trails in the Booger Red/Hole-in-the-Ground, Bare Hills, and Cooper Mountain sub-units would attract more recreational users into these areas and could result in additional resource impacts to riparian and wildlife. The designation of bicycle routes is anticipated to attract a high level of use, resulting in greater levels of impacts to riparian and wildlife.

The implementation of the High Use Alternative would establish a system of roads and trails with designated travel uses that would generally benefit the overall management of the transportation system for planning construction and maintenance needs. This alternative, however, includes the construction of many new travel routes and allows motorized travel uses on the most number of existing and additional routes. Consequently, of the three action alternatives, the High Use Alternative would have the greatest impact on the management of the transportation system. The High Use Alternative would generate the immediate need for additional maintenance and improvements to support the designated travel management system. Additional signage would be needed to designate the allowable travel uses on all BLM system routes. The installation of gates, barricades, and other closure devices would be needed to reinforce the travel restrictions. The construction of parking areas and other trailhead facilities would be needed to accommodate increased recreation usage.

In the short term, the management of the designated routes planned in the High Use Alternative would require additional maintenance efforts, particularly for replacing signs that are likely to be removed or vandalized during the first few years after it has been implemented. In the long term, however, the removal and vandalism of signs should decrease as users become familiar with the new system. Also, as various user groups develop a sense of ownership for their favorite travel routes and volunteer to adopt and maintain them, the need to utilize BLM funds for maintaining many of the routes could decline over time.

The need for scheduled maintenance of BLM system roads with heavy equipment would be increased by this alternative. Approximately 6.5 miles of roads that are currently not included in the scheduled road maintenance program (Sand Gulch and the Wilson Property) would be designated in the General travel use category and would require scheduled maintenance with heavy equipment.

Mitigation: Same as under the Proposed Action.

Name of specialist: Dave Walker

VISUAL RESOURCES

Affected Environment: The Gold Belt region is widely known for its outstanding scenic qualities. The area has many special designations, including: the Gold Belt Back Country Byway, Gold Belt Tour Scenic and Historic Byway, Gold Belt Tour National Scenic Byway, Phantom Canyon ACEC, Beaver Creek ACEC, Beaver Creek WSA, and the American Discovery Trail. These designations were made primarily or in part for of the outstanding scenic quality of the resources. Preserving the scenic quality of these areas is important to local communities that depend on tourism for large parts of their economies, and the economic value of these areas is substantial.

Most of the existing impacts to visual resources in the planning area are from older BLM roads and User Created routes. Most of the BLM roads in the planning area were developed by ranchers, loggers, and miners and were not located or designed to minimize visual impacts on the landscape. In addition, the trend over the past 10 years has seen an increase in unauthorized User Created routes that in time develop into well defined and heavily used travel ways. Some of the sub-units with recurrent off-road use problems are Garden Park, Phantom Canyon, the Gulches, Brush Hollow, Penrose Commons, and Seep Springs.

As a part of the Gold Belt TMP planning effort, an analysis was completed to identify and measure the impacts that each of the alternatives would have on visual resources. Two assessment tools were utilized for this analysis; Visual Resource Management (VRM) Classes and computer modeling.

Visual Resource Management is a classification system for identifying and characterizing visual resource values. VRM classes were assigned in the RMP for all BLM-administered lands in the Royal Gorge Field Office, including the Gold Belt TMP planning area. Any projects or on-going management on Public Lands should meet the applicable VRM class objectives. Public Lands were identified in all four visual resource management classes in the RMP. For detailed information about the VRM classes, see [Appendix 18](#).

Class I – Areas most valued for outstanding visual resources. This class is assigned to special areas where the current management situation requires maintaining a natural environment essentially unaltered by humans. Only one Class I area occurs in the planning area in the Beaver Creek WSA.

Class II – Areas highly valued for visual resources. Class II is based on a combination of scenic quality, sensitivity, and distance zones. These areas are located on BLM lands within a corridor (approximately 1 mile wide) along the county roads that make up the Gold Belt Tour National Scenic Byway, the Public Lands along Highway 9, and along FCR 132 (access road to Beaver Creek

Trailhead).

Class III – Areas moderately valued for visual resources. Class III is based on a combination of scenic quality, sensitivity, and distance zones. These areas include lands found in the backcountry away from primary viewing areas such as county roads or campgrounds.

Class IV – Areas of least value for visual resources. Class IV is based on a combination of scenic quality, sensitivity, and distance zones. These areas include lands found only in the vicinity of Cripple Creek and Victor, within the Deferred Analysis sub-unit.

In addition to the VRM classes, a computerized visibility analysis was used to evaluate the visual resources in a large portion of the planning area. The visibility analysis was completed in ArcInfo GIS to determine the visual impacts for each of the alternatives. Key observation points for this analysis were identified as points along the Gold Belt Tour National Scenic Byway. View analyses were completed using USGS 30 meter resolution Digital Elevation Models for the Scenic Byway routes. The routes assessed were Highway 50, Highway 9, High Park Road, Shelf Road, and the Phantom Canyon Road. The visibility analysis provided statistics on those lands in the Gold Belt planning area that can be seen from the aforementioned routes. These “visible lands” were then overlaid with the road & trail inventory maps to identify those BLM routes that are visible from a vehicle traveling along the scenic byway.

The visibility analysis showed only a couple of routes occurring in areas that are highly visible. These routes are located west of the Shelf Road Recreation Area, commonly referred to as the Oblong Baldy Ridge road and another route immediately to the north. These routes are located on ridges between Long and Espinosa Gulches above the Sand Gulch climbing area. Upon field inspection, one of these two routes is visible from the Shelf Road in several areas.

Environmental Consequences/Mitigation

Current Use Alternative: The Current Use Alternative would continue to allow the existing impacts to visual resources, especially in those VRM Class II areas in Garden Park, Phantom Canyon, Seep Springs, and the Gulches. The impacts to visual resources are considered minimal at the current time but may increase over time. The short term impacts to visual resources are minor but the long term and cumulative impacts may increase if User Created routes are not addressed. BLM closes and rehabilitates these User Created routes as they are discovered but some are very difficult to close or are not discovered until resource damage has occurred and use has become heavy.

Proposed Action: This alternative, in comparison to the Current Use Alternative, would decrease the number of routes available to the public for motorized use by

28.7 miles but would in turn increase the number of routes available to the public for non-motorized use by 50.3 miles. A decrease in miles of motorized routes would reduce the overall cumulative impacts to visual resources. Many of these routes would be closed and rehabilitated, so in time they would be substantially unnoticeable. The increase in non-motorized routes does include some new construction but, in most cases, involves using existing motorized routes for non-motorized use. By converting these routes to non-motorized use, most of them would become narrower with the unused parts naturally revegetating, resulting in improvements in the condition of visual resources and the lessening of the cumulative impacts.

The Proposed Action took into account the VRM Classes and site specific factors. As a result, many of the User Created problem routes and old poorly designed routes were closed, while other routes in more appropriate locations were designated.

The visibility analysis identified only one route as crossing an area with high visibility. The route is the old abandoned road north of the Oblong Baldy Ridge road, the same one identified in the Current Use Alternative. This route would not impact the VRM class III objectives.

The cumulative impacts to visual resources from the Proposed Action are slightly less than the Current Use Alternative. Minimal short term, long term, or cumulative impacts are anticipated as a result of this alternative.

Low Use Alternative: This alternative, in comparison to the Current Use Alternative, would lessen the number of routes available for motorized use by 47.6 miles but would in turn increase the number of routes available for non-motorized use by 15.9 miles. The sizeable reduction of motorized routes and the small increase in non-motorized routes viewed cumulatively would have less of an impact on the visual resources in the planning area. The visibility analysis identified no routes crossing areas with high visibility.

This alternative will have a lower cumulative impact on visual resources than the Current Use Alternative. No short term or long term impacts are anticipated from this alternative.

High Use Alternative: This alternative, in comparison to the Current Use Alternative, would increase the number of routes available to the public for motorized use by 14.7 miles and would increase the number of routes available to the public for non-motorized use by 38.3 miles. The increase in routes and route densities viewed cumulatively would have more of an impact on the visual resources. Under this alternative, more routes were identified in areas within VRM Class II areas and would cause more impact to visual resources.

The visibility analysis identified the same two routes identified in the Current Use

Alternative as crossing areas with high visibility. These routes would not impact the VRM class III objectives.

This alternative would have a slightly greater cumulative impact on visual resources than the Current Use Alternative but the specific impacts to the VRM class objectives are minimal. There will be slightly increased short term and long term impacts anticipated from this alternative.

Mitigation Common to all Alternatives: Any new routes constructed in the area should meet the VRM class objectives and should incorporate visual design considerations, regardless of the size or potential impact.

Name of specialist: Diana Kossnar

LAW ENFORCEMENT

Affected Environment: Problems with unauthorized or illegal OHV use on the Public Lands administered by the Royal Gorge Field Office are numerous and growing. The Law Enforcement program associated with this type of use focuses on education, compliance checks, and issuing written warnings and violation notices. The ability of the Law Enforcement program to increase compliance with existing OHV use regulations is comprised of two main problems:

Manpower Limitations: At present only one law enforcement officer (Ranger) is stationed in the Royal Gorge Field Office. A single Ranger is responsible for enforcement activities on all Public Lands. In addition to enforcing OHV use violations, the Ranger must also handle mineral, land and realty, grazing, recreation, wild horse and burro, and other program violations.

Current Travel Management Policy: Under the BLM's current OHV regulations, motorized travel is permitted on all existing roads and trails, with the exception of those where motorized access has been restricted by activity plans or special orders. Roads are assumed to be open to OHVs unless posted as closed.

The current OHV regulations are difficult for the public to understand and for the BLM to enforce. Although the current regulations prohibit driving off existing roads and trails, many unauthorized User Created travel routes have been created over the years that visitors now regard as existing motorized roads or trails. The creation of such roads and trails often results in damage to Public Lands, causes adverse impacts to other resources, or creates conflicts with other users. Signs are posted on User Created routes indicating that they are closed to motorized use but some do not stay up for very long.

Environmental Consequences and Mitigation

Impacts Common to All Action Alternatives: The primary benefit for law enforcement in switching to a designated route system is that Rangers will know the routes that are available and their designated uses. This will assist Rangers in enforcing user compliance and in court proceedings. Without additional manpower, however, the implementation of the designated route travel management system proposed under all of the action alternatives will do little to alleviate the problems that law enforcement has with illegal OHV use. Some of these problems include the need for additional oversight and the installation and replacement of signs and vehicle barriers.

Current Use Alternative: The Current Use Alternative would allow the continued proliferation of User Created routes. Law enforcement personnel would continue to operate under current travel management regulations and that limit the ability to effectively enforce the closures of User Created routes.

Proposed Action: The Proposed Action would implement a designated route travel management system that would improve the ability of law enforcement personnel to enforce OHV restrictions. The Proposed Action would initially create a greater need for compliance and law enforcement actions but this would improve over time as users become familiar with the new travel management system.

Low Use Alternative: The Low Use Alternative would implement a designated route travel management system that would improve the ability of law enforcement personnel to enforce OHV restrictions. This alternative would, however, require the most law enforcement presence, since the number of road and trails that are designated for OHV use would be substantially reduced. This could lead to overcrowding and increased user conflicts in some areas, increased violations of OHV use on non-motorized routes, and increased attempts to establish illegal routes.

High Use Alternative: The High Use Alternative would implement a designated route travel management system that would improve the ability of law enforcement personnel to enforce OHV restrictions. The High Use Alternative would initially create a greater need for compliance and law enforcement actions but this would improve over time as users become familiar with the new travel management system. Since more routes would be available for OHV use, in the long term, a lower level of law enforcement presence should be needed.

Name of specialist: Jack Hagan

PALEONTOLOGICAL RESOURCES

Affected Environment: Several notable paleontological locations occur within the

planning area. These include those formations found in the Florissant Fossil Beds National Monument, the Garden Park Fossil Area, and the Indian Springs trace fossil area. The National Monument and the Indian Springs area are not involved in this planning effort. The Garden Park Fossil Area is considered the most important resource that needs to be considered in this plan. Portions of the Garden Park Fossil Area are designated as an ACEC, a Research Natural Area, and a National Natural Landmark. Garden Park is noted for the quality and quantity of dinosaur fossils that have been excavated over the last 130 years. It was one of the first major dinosaur fossil localities in the U.S. and facilitated the evolution of the science of Paleontology.

A paleontological resource inventory is being prepared for the Royal Gorge Field Office and will be completed in late 2004. This inventory will identify those areas that require special attention or mitigation.

One of the complications with management of the Garden Park Fossil Area is the use of portions of the area for target shooting. For a detailed analysis of the target shooting issue, see the Recreation section.

Environmental Consequences & Mitigation:

Current Use Alternative: This alternative would allow continuing impacts and the potential for damage to paleontological resources by unauthorized activities such as OHV use off existing routes and violations of the target shooting closures in the Garden Park sub-unit. The most serious type of damage is caused by dirt bikes traveling through historic dinosaur quarries. The potential for illegal digging is high due to the high number of roads that can result in major impacts to irreplaceable fossil resources. The number of available roads within the Garden Park Fossil Area exceeds reasonable access requirements and leads, in part, to this type of ongoing damage.

Under the Current Use Alternative target shooting would continue in Garden Park subject to the existing closures. Because target shooting would be restricted to two small areas that have no known fossil resources, target shooting would have no direct impact to fossils but the indirect impacts, such as driving off designated routes and violating the existing target shooting closures, would continue.

Proposed Action: The Proposed Action would result in an improvement to the protection of fossils and historic dinosaur quarries. This alternative would also enable better management of authorized travel and reduce unauthorized motorized activities within the Garden Park Fossil Area.

The future closure of concentrated target shooting areas would greatly improve the management of the paleontological resources. Under this alternative, target

shooting would be immediately closed in the Oil Well Flats portion of the Garden Park sub-unit but would remain open in the Dinosaur Flats portion until such time as another suitable area in the Canon City area is located, then it will be closed. Until a public shooting area is established to replace Dinosaur Flats, the closure of the Oil Well Flats target shooting area under this alternative could lead to intensified impacts in the Dinosaur Flats area.

Low Use Alternative: The Low Use Alternative would reduce impacts to fossils due to a major reduction in the number of designated motorized routes. The reduction of motorized travel would decrease the impacts caused by illegal off-road travel and those activities associated with motorized use. It would also reduce potential impacts to both known and unknown fossil sites.

Under the Low Use Alternative, concentrated target shooting would continue in the Garden Park sub-unit with existing closures, although it would probably be substantially reduced in the Oil Well Flats area due to the restricted motorized access that would occur under this alternative. Consequently, target shooters who previously used the Oil Well Flats area would probably move to the Dinosaur Flats site instead, causing increased use in that area. Because target shooting would be restricted to one small area that has no known fossil resources, the changes in target shooting would have no direct impact to fossils but the indirect impacts of OHV use could increase, such as driving off designated routes and violating the existing target shooting closures.

High Use Alternative: The High Use Alternative would reduce impacts to fossils due to the closure of routes leading into historic quarries and known fossil localities. In addition, the impacts would be moderately reduced due to fewer motorized routes in known fossil locations than under the Current Use Alternative. The designation of routes there would decrease the impacts caused by illegal off-road travel and those activities associated with motorized use.

Under the High Use Alternative the remaining target shooting areas in the Garden Park sub-unit would be closed and the impacts associated with target shooting would be eliminated. The closure of concentrated target shooting areas would greatly improve the management of the paleontological resources.

Mitigation Common to All Alternatives

Road closures in important fossil areas should allow for authorized paleontological investigations and other authorized uses. The roads leading into known fossil locations should be closed with locked gates.

Name of specialist: Dan Grenard

FUELS MANAGEMENT

Affected Environment: The fire season of 2000 was extremely difficult and challenging for the public and the land management agencies. An outcome of that fire season was a national fire plan that included investing in projects to reduce the wildfire risks to communities. Since 2001, the Royal Gorge Field Office has treated a total of 4,132 acres with either mechanical means or prescribed fire. Some of the treatments were within the Gold Belt TMP area in the Deer Haven and the north portion of Booger Red sub-units. Future treatments are also planned within the planning area, and may include roller chopping or hydro-axing of pinyon-juniper forests, thinning of ponderosa forests, and the selling of firewood, as well as conducting prescribed burns.

Environmental Consequences & Mitigation:

Consequences Common to All Alternatives: Generally, access to fuel treatment project areas is adequate, especially since most of the treatments are near subdivisions. Current and future access has been achieved via roads on Public Land or through roads on private, county, or state land. No new roads have been built or are planned for access to the treatment areas. Under all of the action alternatives, those routes that are designated for administrative use (Non-system) would be available for fuels treatments. In the rare case that adequate access is only by a road that has been closed and blocked off, it could be temporarily reopened during the treatment and then closed immediately afterward, subject to additional environmental analysis.

Name of specialist: Bob Wiegand

FIRE MANAGEMENT

Affected Environment: The Gold Belt TMP area was included in the development of the Royal Gorge Fire Management Plan, approved in 2001. The Fire Management Plan includes identified fire management areas. The following fire management areas are found within the Gold Belt planning area: Twin Mountain Communications Site (A-2); Northeast Canon City (B-1); Penrose Area (B-2); Mexican Spotted Owl Habitat (B-7); and Four-Mile Creek (C-6). Each fire management area relates to management direction, concerns, and issues. These are all specific to resource protection actions, constraints and Wildland Fire Use opportunities for resource benefits, applicable to each fire management area. Specific details related to fire management can be found in the *Royal Gorge Field Office Fire Management Plan*, available in the Royal Gorge Field Office.

Environmental Consequences & Mitigation:

Current Use Alternative: This alternative would not affect existing Fire Management actions or practices as related to Suppression, Wildland Fire Use or Prescribed Fire.

Proposed Action: The Proposed Action would provide a slight benefit in reducing potential human caused ignition sources within the planning area. As compared to the Current Use Alternative, this alternative would reduce motorized access routes by 29 miles. This reduction in motorized access would reduce potential for human caused ignition sources including abandoned campfires, smoking, fireworks, exhaust systems and exhaust sparks. Historically, motorized travel routes have had the highest concentration of human caused wildland fire ignitions due to ease in public access.

This alternative will not adversely effect fire suppression response time as emergency vehicles will continue to have authorized access on restricted or closed travel routes during suppression response actions. Routes that are physically blocked would be unavailable for fire response. Those routes that become overgrown with vegetation could delay future suppression response as suppression forces would need to access the incident on foot.

Prescribed fire operations would not be impacted by this alternative. Existing and closed motorized routes are usually considered for fire control features, when available. Restricted roads and trails used as prescribed fire control features would be rehabilitated upon project completion. Non-restricted roads and trails used as control features will occasionally require minor improvement, also providing a limited level of maintenance.

Low Use Alternative: The Low Use Alternative provides the highest potential reduction for human caused fire occurrence of all alternatives. This alternative would eliminate 67 miles of motorized travel routes as compared to the Current Use Alternative. Reducing motorized travel routes to this extent would correspondingly reduce human caused risk factors. Limiting the ability of the public to access remote areas would also reduce human caused fire occurrence, providing suppression resources with shorter travel distances to reach incidents. Shorter response time to an incident will usually result in quicker containment, lower complexity, fewer acres burned, and lower suppression costs.

Prescribed fire operations would not be impacted by this alternative. Existing and closed motorized routes are usually considered for fire control features when available. Restricted roads and trails used as prescribed fire control features would be rehabilitated upon project completion. Non-restricted roads and trails used as control features will occasionally require minor improvement, also providing a limited level of maintenance.

High Use Alternative: This alternative increases motorized access routes by 14 miles as compared to the Current Use Alternative. The additional mileage would correspondingly increase human risk factors associated with additional travel routes available to motorized vehicles. Potential human caused ignition sources include, but are not limited to, abandoned campfires, smoking, fireworks, exhaust systems and exhaust sparks.

The additional motorized access under this alternative would provide more access to both the public and fire suppression resources. Under the High Use Alternative, other than a slightly elevated human risk potential due to increased public access, fire suppression response would not be affected.

Prescribed fire operations would not be impacted by this alternative. Existing and closed motorized routes are usually considered for fire control features when available. Restricted roads and trails used as prescribed fire control features would be rehabilitated upon project completion. Non-restricted roads and trails used as control features will occasionally require minor improvement, also providing a limited level of maintenance.

Name of specialist: Ed Skerjanec

SOCIO-ECONOMIC

Affected Environment: The TMP for the Gold Belt is in parts of Fremont, Teller, and Park and El Paso Counties. For this social and economic analysis only, Fremont and Teller Counties will be discussed because they are the areas that cover the largest sections of the planning area.

Population: Both Fremont and Teller Counties grew at a faster rate than the population growth for Colorado as a whole. Teller County had a 65% change from 1990 to 2000 while Fremont County had a 43 % change from 1990 to 2000.

Table 14-1: Population Growth between 1990 and 2000

Area	1990	2000	1990-2000 Percent Change
Colorado	3,297,394	4,301,261	30.6 %
Fremont County	32,273	46,145	43.0 %
Teller County	12,468	20,555	65.0 %

Source: US Census Bureau 1990c, 2000c

Population within Fremont County is projected to grow 79.7 % between 1990 and 2025 and 48.7 % for Teller County. The state as a whole is projected to grow 96 % for the same period. (Projections from Colorado Center for Business and Economic Forecasting 2002)

Employment and Economy: Between 1990 and 2000, the total number of jobs in Fremont and Teller Counties increased between 53.3 and 149.4 %. According to the figures in Table 14-2 the greatest increase in employment occurred under the construction sector for Fremont County, while the greatest increase in employment was in the services sector for Teller County. The percentage of total employment growth for Fremont and

Teller Counties between 1990 and 2000 was greater than total employment growth for the state.

According to a 1999 model of the distribution of tourism employment, approximately 9 % of employment was generated by tourism in Fremont County and 34 % of employment was generated by tourism in Teller County. A total of 58 % of tourism employment in Teller County was the result of casinos.

Employment in Colorado between 1990 and 2025 is expected to increase 27 %. Fremont County is projected to increase 42.6 % for the same period. Teller County employment will grow at a much higher rate of 273 %.

Total personal income for the state is projected to grow at 7.22 % per year to the year 2025. Fremont County is projected to grow at a rate of 6.56 % per year. Teller County personal income is projected to grow at the rate of 5.87 % per year. (Projections from Colorado Center for Business and Economic Forecasting 2002).

Table 14-2: Sector Employment- Numbers of People Employed

Sector	Colorado		Fremont Co.		Teller Co.	
	1990	2000	1990	2000	1990	2000
Agriculture	63,879	84,614	848	825	161	(D)
Mining	31,384	22,256	185	218	73	(D)
Construction	39,386	226,571	510	1,996	316	940
Manufacturing	197,879	217,257	1,076	1,159	147	341
Transportation, Communications and Utilities	107,235	162,394	381	501	118	242
Wholesale and Retail Trade	436,403	615,366	2,367	3,398	1,040	1,746
Finance, Insurance and Real Estate	179,826	298,216	576	1,305	462	1,746
Services	608,358	949,847	3,853	4,783	1,169	4,272
Government	332,420	383,107	3,092	5,167	684	1,161
Total Employment	2,054,770	2,958,899	12,618	19,352	1,169	4,272

Source: US BEA 2001

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

Income and Earnings by Industry: As shown in Table 14-3, the per capita personal income for Fremont County was \$17,070, an increase of 37.5 percent over the 1990 income and \$15,996 below the state average. For Teller County in 1999 the per capita personal income was \$26,573, an increase of 53 per cent since 1990 and \$6493 below the state average.

Table 14-3: Per Capita Personal Income

	1990	1999
Colorado	\$ 19,680	\$ 33,066
Fremont County	\$ 12,415	\$ 17,070
Teller County	\$ 17,327	\$ 26,573

Source: US BEA 2001

As shown in Table 14-4, earnings by persons employed in Fremont and Teller Counties increased by 122 percent and 356 percent, respectively, higher than the growth level experienced by the state as a whole (103.2 percent).

The largest industries in 1999 in Fremont County were government (with \$215,524,000), services (\$87,426,000), and trade (\$48,462,000). The largest industries in 1999 for Teller County were services (\$82,364,000), government (\$35,343,000), and trade (\$22,132,000).

Table 14-4: Earnings by Industry (in Thousands of Dollars)

Sector	Colorado		Fremont Co.		Teller Co.	
	1990	1999	1990	1999	1990	1999
Agriculture	1,164,351	1,563,113	2,566	4,190	-99	(D)
Mining	1,168,710	1,472,740	5,956	7,172	1,960	(D)
Construction	2,547,432	7,540,324	10,329	37,402	4,287	22,134
Manufacturing	6,545,084	10,196,289	22,758	31,780	1,540	11,161
Transportation, Communications and Utilities	4,302,248	10,347,280	9,228	23,060	2,158	7,311
Wholesale and Retail Trade	7,357,823	14,603,427	26,152	48,462	10,054	25,307
Finance, Insurance and Real Estate	3,064,540	9,204,581	5,842	25,313	2,895	22,132
Services	12,372,354	28,493,205	45,023	87,426	11,143	82,364
Government	9,784,841	14,873,831	88,259	215,524	14,936	35,343
Total Earnings	48,307,383	98,294,790	216,113	480,329	48,901	223,180

Source: US BEA 2001

(D) Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals

Housing: The total number of housing units (see Table 14-5) increased the greatest in Teller County, with 37 %, while Fremont County had a 25 % increase, and the State as a whole increasing 22 %. The percent of owner occupied dwellings went up in Teller County, from 77 % to 81 % in 2000, while Fremont County went from 72.9 % to 75.9 %. The vacancy rate went down in Teller and Fremont Counties between 1990 and 2000.

The Teller County vacancy rate is over twice that for the State as a whole.

Table 14-5: Percent of Occupied Units That Are Owner-Occupied

	Colorado	Fremont County	Teller County
Total Units- 1990	1,477,349	13,683	7,565
2000	1,808,037	17,145	10,362
Percent Change	22.4 %	25.3 %	37.0 %
Owner Occupied- 1990	62.2 %	72.9 %	77.0 %
2000	67.3 %	75.9 %	81.0 %
Vacancy Rate- 1990	14.7 %	14.4 %	37.6 %
2000	8.3 %	11.2 %	22.9 %

Source: US Census Bureau 1990a, 2000a, 2000b, Colorado Department of Local Affairs 2001a.

Environmental Consequences: The combination of travel uses of the Public Lands under any of the alternatives should not cause any major changes to the area's population, income, and employment. This is because the differences between the alternatives are not great enough to have a measurable impact on the local economy. The economic impacts resulting from changes in travel uses that adversely affect one part of the economy are often beneficial to other parts.

Name of specialist: Jeanette Pranzo

PUBLIC PARTICIPATION

June 18, 2002: Notice of Intent to Prepare the Gold Belt Travel Management Plan and Amend the Royal Gorge Resource Management Plan published in the Federal Register.

July 16, 2002: Conducted field trip of the Garden Park and Penrose Commons portions of the Gold Belt Planning Area for members of the Front Range Resource Advisory Council (RAC) and interested citizens.

July 17, 2002: Presented a briefing of the travel management planning process at the Front Range RAC meeting.

August 14, 2002: Conducted meeting with members of the Front Range RAC travel management subgroup to identify affected stakeholders and initiate interviews.

August-November, 2002: Conducted interviews with 43 stakeholders to identify issues and concerns.

November 20, 2002: Presented an update of the Gold Belt Travel Management Plan and

results of stakeholder interviews at Front Range RAC meeting.

November 7, 2002: Mailed letters to approximately 300 citizens announcing beginning of the planning process and the public meeting on December 5, 2002.

November 22, 2002: Issued a news release announcing beginning of the planning process and the public meeting to be held on December 5, 2002.

December 5, 2002: Conducted a public meeting (attended by 110 people) explaining the purpose of the travel management plan and asking for public involvement.

December 18, 2002: Mailed letters (summary of meeting) to citizens who attended the public meeting held on December 5, 2002.

January 11, 2003: Conducted a field trip with representatives of environmental and non-motorized interest groups.

January 13, 2003: Mailed letters to affected grazing permittees requesting input into identifying the roads needed for managing their livestock operations.

January 16, 2003: Presented an update to the Front Range RAC on the Gold Belt Travel Management Plan and discussed the development of the key issues and desired future conditions derived from stakeholder interviews and public comments from the December 5th public meeting.

January 18, 2003: Conducted a field trip with representatives of motorized interest groups.

January-August, 2003: Received comments from interested citizens and affected users and conducted informal meetings and discussions with various groups and individuals.

June 6, 2003: Mailed letters to approximately 210 people announcing the public meeting to be held on July 2, 2003.

June 16, 2003: Issued a news release about second public meeting to be held on July 2, 2003.

July 2, 2003: Conducted a public meeting displaying four travel management alternatives for the Gold Belt TMP that was attended by 80 citizens.

November 13, 2003: Presented a summary of the evaluation process used for analyzing the four alternatives and for developing the proposed action at the Front Range RAC meeting.

PERSONS/AGENCIES CONSULTED:

Front Range Resource Advisory Council
Division of Wildlife
U.S. Forest Service
Fremont, Teller, and Park County Commissioners
Beaver Park Water District

BLM STAFF INVOLVED:

Keith Berger	Rangeland Management Specialist
Erik Brekke	Wildlife Biologist
Mike Gaylord	Haz-Mat Coordinator
Dave Gilbert	Fisheries Biologist
Lindell Greer	Realty Specialist
Tom Grette	Rangeland Management Specialist
Diana Kossnar	Outdoor Recreation Planner
Roy L. Masinton	Field Manager
Ed Skerjanec	Fire Management Officer
John Smeins	Hydrologist
Paul Trentzsch	Staff Leader-Renewable Resources
Joe Vieira	GIS Coordinator
Dave Walker	Outdoor Recreation Planner
Monica Weimer	Archaeologist
Bob Wiegand	Fuels Management
Pete Zwaneveld	Planning & Environmental Coordinator